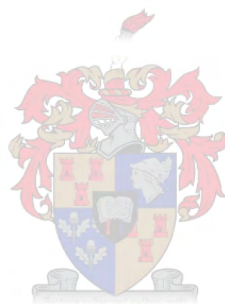


**DETERMINANTS OF FOOD PURCHASE PRACTICES AND THEIR CONTRIBUTION
TOWARDS FOOD ACCESSIBILITY BY HOUSEHOLD FROM IMBALI TOWNSHIP,
PIETERMARITZBURG KWA-ZULU NATAL, SOUTH AFRICA**

by

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*Master's research assignment presented in partial fulfilment of the requirements for the degree of
Master of Science in Food and Nutrition Security in the Faculty of AgriSciences at Stellenbosch
University*

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December 2019

DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously, in its entirety or in part, submitted it for obtaining any qualification.

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ABSTRACT

The study evaluated household food purchasing practices and their contribution towards household food accessibility and assessed social and economic determinants in selected households from Imbali Township in Pietermaritzburg, Kwa-Zulu Natal. The study design was cross-sectional, using qualitative and quantitative techniques. Instruments used were questionnaires, in-depth interviews, and observational study lists. Using the questionnaires, household socio-economic and food accessibility information was obtained. In-depth interviews helped to gain information and elaboration on food purchasing practices and overall experience of purchasing locally. By use of observation lists, information on food types and quantities purchased was obtained. Twenty-nine of the households relied on supermarkets for the purchase of their groceries and all of them reported instances when surrounding outlets assisted in securing some food items, thus promoting their households' food accessibility. Fourteen of the households owned vegetable gardens but indicated how this was not their main source of food. Most of the participants were employed, highly educated and mostly reliant on formal salaries as their main source of income. From the study, determinants of food purchasing practices were identified as purchasing power, educational level, convenience, store hygiene, safety in reaching food suppliers, and transport. Household purchasing frequency and food expenditure depended on household income level, household size and the time at which formal salaries were received. Factors that promoted food accessibility included: higher physical accessibility to food supply, electricity and water access, greater number of rooms in the households promoting greater disposal of food storage space, vegetable garden ownership, and higher income level.

OPSOMMING

Die studie het huishoudelike voedselaankooppraktyke en hul bydrae tot die toeganklikheid van huishoudelike voedsel geëvalueer, asook die sosiale en ekonomiese bepalende faktore in geselekteerde huishoudings van die Imbali-gemeenskap in Pietermaritzburg, Kwa-Zulu Natal, beoordeel. Die studie-ontwerp was 'n dwarsnitstudie, met behulp van kwalitatiewe en kwantitatiewe tegnieke. Instrumente wat gebruik is, sluit in vraelyste, in-diepte onderhoude en waarnemingslyste. Met behulp van die vraelyste is inligting rakende die huishoudelike sosio-ekonomiese en voedseltoeganklikheid verkry. In-diepte onderhoude het gehelp om inligting te verkry oor voedselaankooppraktyke en die algemene ervaring van plaaslike aankope. Deur gebruik te maak van waarnemingslyste, is inligting oor voedselsoorte en hoeveelhede aangekoop verkry. Nege-en-twintig van die huishoudings het op supermarkte staatgemaak vir die aankoop van hul kruidentersware, en almal meld gevalle waar omliggende winkels soms gebruik word om voedsel te bekom en sodoende hul huishoudings se voedseltoeganklikheid te bevorder. Veertien van die huishoudings het groentetuine besit, maar het aangedui dat dit nie die belangrikste voedselbron was nie. Die meeste van die deelnemers was werksaam, hoogs opgelei en was meestal afhanklik van formele salarisse as hul hoof bron van inkomste. Uit die studie is die dryfkrag van voedselaankooppraktyke geïdentifiseer as koopkrag, opvoedkundige vlak, gemak, winkelhigiëne, veiligheid in die bereiking van voedselverskaffers en vervoer. Huishoudelike aankoopfrekwensie en voedseluitgawes was afhanklik van huishoudelike inkomstevlak, huishoudelike grootte en die tydstop waarop formele salarisse ontvang is. Faktore wat voedsel beskikbaarheid bevorder het was: fisiese beskikbaarheid van voedsel, toegang tot elektrisiteit en water, meer kamers in die huishouding, wat lei tot makliker berging van voedsel, die besit van groentetuine, en hoër inkomstevlakke.

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CHAPTER 1: INTRODUCTION

1.1 Background

Food security, at the individual level, household, national, regional, and global levels is achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO, 1996). The Food and Agriculture Organization (2009) described the four pillars of food security as availability, access, utilisation, and stability. Underpinning food security is the sustainable availability of, access to, and utilisation of food (Faber *et al.*, 2010). As such, if one of these pillars is not fulfilled, food insecurity may be triggered. Certain food security and accessibility studies (Sakyi, 2012; Altman *et al.*, 2009; Madiba, 2006; Faber *et al.*, 2010) have been more centred on rural areas and have tended to neglect the contribution of food outlets, vendors, or mini-markets within the neighbourhood towards household food accessibility. There are gaps in research knowledge and such food purchase practices have not been adequately explained or analysed as potential contributors to household food access.

Generally, the way that food is purchased will depend on the households' social and economic status. More specifically, these households will purchase food based on affordability, and this is a matter of household income in reference to the cost of food. Given the high rates of unemployment and poverty in South Africa, it is important to note that access to food remains difficult unless food is grown or there is a supplement to lack of income with a social grant (Ramkisoan, 2017). Food cost and accessibility seem to be inversely related; where the food price is high, a food item becomes less accessible to people or harder to purchase. How much this level of accessibility changes, will depend on individual or household income and socio-economic status. Purchasing food items from surrounding outlets has potential to contribute positively towards the improvement of household food access. As these outlets are nearer, they are more physically accessible and may result in reduced transport costs. However, just because they are more physically accessible and may potentially improve household food accessibility, does not imply that the food available for purchase can be accessed by all households. Furthermore, products obtained from such purchase practices may not always meet household members' energy requirements and may not always promote dietary diversity or translate to nutritional value. It is food preference, food choice, and food utilisation that are more directly related with nutrition security.

Investigating such food purchase practices also requires focus on the types of food purchased from outlets in the neighbourhood. These purchases are not only dependent on food affordability, but are also informed by lifestyle changes due to urbanisation, cultural background, social context and class. The nature and patterns of food expenditure continue to reflect the socio-economic and demographic characteristics of households under consideration (Sekhampu, 2012).

There is a growing concern over the health effects of the nutrition transition that comes with urbanisation. According to Popkin (2001), there appears to be a shift in eating preferences, mainly induced by shifts in income, food prices, food availability, as well as the modern food industry and mass media. Dietary changes appear to be shifting universally toward a diet dominated by higher intakes of animal and partially hydrogenated fats and lower intakes of fibre. Activity patterns at work, at leisure, during travel, and in the home are equally shifting rapidly toward reduced energy expenditure (Popkin, 2006). Consequently, this translates to adverse health outcomes of malnutrition and increased risk of non-communicable diseases.

Thus, this study seeks to investigate the determinants of household food purchase practices and their contribution towards household food accessibility.

1.2 Problem setting

Food security dimensions such as food accessibility, stability, and utilisation are not always favoured in some households, which then triggers vulnerability to food insecurity. According to Vogel (2002) and Sakyi (2012), the issue of low food security status at household level is a matter of inadequate food access and not food shortages in South Africa. Faber *et al.*, (2010) reported specific food insecurity triggers as being global economic downturn, escalating food prices, household disruptions such as the illness or death of a breadwinner, climate-induced risks on crop production, as well as water scarcity. Smith *et al.*, (2000) categorised household food insecurity factors in developing countries as: insufficient food availability at the national level resulting in food insecurity at the household level, insufficient household food production or the lack of economic power to purchase food, and inequitable intra-household access to food. As such, the problem is that the food which is available is not accessible to all and there are certain social and economic determinants responsible for this lack of accessibility.

In 2014, the World Food Programme (WFP) suggested that, when effecting food security interventions, the development agenda should focus on optimising food production through sustainable agricultural productivity, as well as optimising household food access to ensure that the most vulnerable people are able to obtain adequate food in quantity and nutritional quality (WFP in 2014: Facts and Figures). This is important since, although South Africa produces enough food, social and economic exclusion prevail, preventing other people from receiving adequate food to live healthy and productive lives. In 2006, the Food and Agriculture Organization (FAO) reported that food access is achieved if individuals have adequate resources or entitlements to acquire appropriate food for a nutritious diet. Entitlements are defined as the set of all commodity bundles over which a person can establish command given the legal, political, and social arrangements of the community in which they live (FAO, 2006).

The study assumes that purchasing practices by the households contribute towards household food accessibility. This is significant because, to address food insecurity at the national level, the household level is the best point to start from and food security dimensions may need to be isolated. Factors that influence household food accessibility include household size, household members' employment and income status, dwelling type and number of rooms, water and energy access, access to food storage and refrigeration, educational level, money available for food expenditure, source of food, and food availability at surrounding outlets and retailers.

1.3 Aims and objectives of the study

The aim of this study was to investigate the social and economic determinants of food purchase practices at household level within an urban community, and the contribution thereof towards household food accessibility.

Specific objectives that the study seeks to achieve are:

- 1 To establish the demographic profile of the person responsible for food purchase decision-making in the household.
- 2 To determine household characteristics, and the social and economic determinants of food purchase from outlets within the community.
- 3 To determine the types of food purchased, purchasing frequency, quantity of food, and intended purpose.
- 4 To determine the contribution of food purchase practices towards the households' food accessibility - a component of food security.

1.4 Significance and motivation

The accomplishment of democracy in South Africa led to a significant number of economic and political advances; however, the prevalence of poverty and unemployment rates is still high. Although South Africa is food secure at the national level, a large proportion of the population is food insecure, a stark reality of widespread poverty that underpins hunger (Faber *et al.*, 2010). There is substantial convergence between South Africa's National Development Plan and the United Nations 2030 Agenda on Sustainable Development, Sustainable Development Goals (SDGs). This is evident in the policy aspects and the overarching imperatives, such as: raising employment through faster economic growth, improving the quality of education, skills development and innovation; building the capability of the state to play a developmental, transformative role and leaving no one behind (South Africa VNR, 2019)

The first sustainable development goal is to end poverty in all its forms, everywhere. Another goal to be achieved is the end of hunger to achieve food security, improve nutrition, and to promote sustainable agriculture. These touch on the issue of widespread poverty that South Africa is

presently faced with and it is for this reason that there may be setbacks in achieving food security since there is still a high number of households in a constant struggle to make a living and meet their basic needs. Abdu-Raheem and Worth (2011) attest to this, reporting existence of food insecurity in some households as largely due to the high level of poverty that exists in the country. Despite South Africa being a food-secure country in terms of aggregate food availability, it is listed by WHO as one of the thirty-six high-burden countries, home to large numbers of stunted children (Faber *et al.*, 2010). In 2017, the FAO of the United Nations reported an increase in the number of malnourished people in Sub-Saharan Africa. The FAO's Africa Regional Overview of Food Security and Nutrition report from 2017, revealed a rise in chronic undernourishment from 20.8% to 22.7% between 2015 and 2016. Furthermore, the number of undernourished people increased from 200 to 224 million, i.e. 25% of the 815 million people reported to be undernourished in 2016, globally.

For the study area in question, there is a combination of low, middle, and high-income households with varying levels of household food accessibility. The area is an urban community whose food purchase practices are governed by urbanisation effects, economic, and social status. In assessing food accessibility, the study will take into consideration: physical accessibility of food suppliers by household members, food availability at the point of purchase, household socio-economic status and food affordability. The study also has potential to give understanding of the impact of the household decision-maker or breadwinner's demographic profile, educational level and income status, on the types of food purchased, purchasing frequency, and quantities.

1.5 Chapter outline

The report is divided into seven chapters: Chapter 1 is comprised of the introduction, problem statement, motivation and significance of the study, as well as the aims and objectives. Chapter 2 is a literature review of the household food security concept, household food accessibility as an indicator of food security, and social and economic determinants of food purchasing practices. Chapter 3 outlines the research methodology; which includes research design, sources of data, sampling method and area, sample size, ethical approval to conduct the investigation, the constructs measured, survey instruments, as well as analysis and data reporting. Chapter 4 is a tabulation and graphic presentation of the results obtained from questionnaires and completion of the observation checklists. Chapter 5 entails a summary of findings from in-depth interviews. Chapter 6 discusses integrated qualitative and quantitative data, whilst using the study objectives as a guideline. Chapter 7 represents concluding remarks of the study, as well as the study's limitations and recommendations.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of relevant literature, with a focus on food security, food accessibility at household level, as well as the socio-economic determinants of food purchasing practices. Access has been defined as a household's ability to acquire food of adequate quality to have all its members meet their nutritional requirements and lead productive lives (Webb *et al.*, 2006). The WFP defined food access as a condition when all people have access to food that is adequate, safe, nutritious, affordable, and diverse, all year round. A focus on food security interventions at the household level is important because food may be available on domestic markets, but poverty, income inequality, and social exclusion prevent vulnerable households from obtaining adequate food to live healthily and productively (Bogart, 2014). Vogel (2002) reported that most households in South Africa experience food insecurity, and this should be considered as an issue of inadequate food access for vulnerable groups, rather than a national food shortage. As such, a lack of food access constitutes a national crisis and has taken a focal point in recent years. Labadarios *et al.*, (2011) also reported that food access and its measurement is being paid attention to due to the realisation that the availability of food in the markets does not necessarily translate to accessibility for every household.

2.2 Household food security

Investigating food purchase patterns at household level is a fundamental requirement for optimising household nutrition and conducting food security research to evaluate the determinants of South Africa's current food and nutrition landscape. The way that food is purchased at household level has a recognisable relation with food security, which the Food and Agriculture Organization (FAO) defines as the availability, at all times, of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and offset fluctuations in food production and prices (FAO, 2006). At the World Food Summit in 1996, food security at the individual, household, regional, and global level was defined as the physical and economic access to safe, adequate, and nutritious food to such an extent that dietary needs and preferences of people are met (FAO, 2006). Gibson (2012) explained that, as much as food insecurity is a global problem, the definition keeps evolving and is still widely misconceived and misunderstood. Common misconceptions include describing food security as food safety and associating it with underdeveloped and developing countries only.

The food security definition has been developed further to consider the significance of dietary diversity, nutrition security, and socio-cultural acceptability. According to Ruel (2003), even though there is a lack of consensus on how to measure dietary diversity, there is a universal recognition of it as a key component of a healthy diet. Dietary diversity refers to the number of different food groups consumed over a given reference period. Dietary quality is the nutrient adequacy of food, referring to the ability of a diet to meet the requirements for all essential nutrients and energy. A study by

Hoddinott and Yohannes (2002) of the Food Consumption and Nutrition Division of the International Food Policy Research Institute (IFPRI) investigated the potential of dietary diversity as a food security indicator for rural and urban areas in low and middle-income countries. The association of dietary diversity with household per capita daily caloric availability from staples and non-staples, and household per capita consumption was examined. It was concluded that percent increase in dietary diversity led to increase in household per capita daily caloric availability from staples and non-staples, and household per capita consumption. There was also a reported association with food access at individual level. Accordingly, dietary diversity would appear to show promise as a means of measuring food security and monitoring changes and impact, particularly when resources available for such measurement are scarce (Hoddinott & Yohannes, 2002).

Nutrition security relates to the nutrient adequacy of food, and food security does not necessarily translate to nutrition security, but is a prerequisite for nutrition security to be achieved. In 2009, the FAO held a forum discussion on the relationship and difference between food security and nutrition security. According to the discussion, nutrition security of the household will be met on condition that the food is consumed in a manner that meets household members' dietary requirements and nutritional needs (Agyemang & Jonsson, 2009). The consideration of nutrition security is recognised by the food utilisation pillar of food security. The way that food is prepared before it is consumed requires the recognition of the importance of nutrition for health and self-care. For nutrition security to be achieved, food, health, and care are required. Thus, there is no way that nutrition security would be achieved if there is no food security (Edwards & Jonsson, 2009).

According to Leroy *et al.*, (2015) food security dimensions include food availability, accessibility, utilisation, and stability. According to Sakyi (2012), the United States Agency for International Development (USAID) lists food availability, food access, and food utilisation as the distinct variables that are crucial for the attainment of food security. The agency refers to food availability as adequate quantities of necessary and appropriate types of food obtained from domestic production, donors, and commercial imports. Food access is referred to as the state in which individuals or households have adequate income and resources to purchase or obtain appropriate amounts of food necessary to maintain the consumption of a nutritionally adequate diet. Food utilisation is outlined as the proper use, processing, and storage of food as informed by knowledge of nutrition, health, and sanitation. Leroy *et al.*, (2015) uphold this definition, adding that utilisation refers to the ability of individuals to effectively absorb and use the nutrients ingested for bodily functions. They explain food stability as the link between availability, access, and utilisation, the state whereby people do not have to be anxious about the risk of not being food secure due to external events and certain seasons.

The Department of Agriculture, Forestry and Fisheries in conjunction with the Department of Social Development referred to these four pillars as the factors affecting food security. According to their National Policy on Food and Nutrition Security published in August 2013, South Africa's food availability depends on how well the agricultural sector performs and the country's ability to import,

store, process, and distribute food (Nkwana, 2015). Even though there is adequate food supply, food accessibility is low, and this is mainly due to the lack of purchasing power by individual households. The policy further states that food utilisation refers to the appropriate preparation of food and consumption that ensures maximum nutrition. Also considered under food utilisation is food storage, food preservation, and food processing. The policy highlights the importance of monitoring storage, processing, and preservation in such a way that the organoleptic and nutritional value of the food are not compromised.

2.2 Household food accessibility

Specific to this study is food accessibility, a component of the food security concept that can potentially be improved by the presence of food outlets or vendors within the community, in addition to major food retailers in town as the main source of food. According to Ray and Schaffer (2013), food accessibility requires an adequate resource base and the appropriate tools to engage in food production and consumption. It is achieved when there is an ability to earn enough to participate in the retail market for food. It can also be made available in the form of social security, own food production, and aid agencies. To establish a comprehensive agricultural policy, Ray and Schaffer (2013) argued that environmental, human, physical, economic, and political sustainability were of major importance. More aligned with food accessibility was physical sustainability, defined as ensuring that all human beings have access to the food that they require for adequate physical, mental, and social development. They referred to the Universal Declaration of Human Rights (UDHR) in 1948, which stated that humans have the right to food and the right to be free from hunger, as well as the 1974 World Food Conference failure to achieve the goal of eradicating hunger and malnutrition in a space of 10 years. From this report, they concluded that emphasising the right to food and freedom from hunger does not guarantee individual food access and security.

Leroy *et al.*, (2015) critically reviewed indicators of measuring the food access dimension of food security at individual and household level. This stemmed from the growing concern of the lack of understanding of measuring food security dimensions individually; these being availability, access, utilisation, and stability. The paper provided a conceptual framework for the multiple components and dimensions of food security, reviewed underlying constructs for food access, and mapped food access indicators according to their level of measurement, strengths, and weaknesses. The mapped indicators were categorised into three groups: experience-based indicators, coping strategies, and dietary diversity. Out of these indicators, some of the highly recommended ones were the Household Food Security Survey Module (HFSSM) and the Household Food Insecurity Access Scale (HFIAS). The HFSSM was developed to measure whether households had enough food or money to meet basic needs, and what their behavioural and subjective responses to that condition were (Leroy *et al.*, 2015). The HFIAS was adapted from the HFSSM in a Food and Nutrition Technical Assistance (FANTA) project funded by USAID. The construction of the HFIAS was based on four domains,

namely: the uncertainty and worry about food supply, inadequate quality of food, insufficient food quantities, and social unacceptability of food procurement and consumption (Coates *et al.*, 2007).

2.3 Social determinants of food purchasing practices

According to Ward *et al.*, (2012) the social determinants of food purchasing practices are the relative effects of age, gender, income, social class, education attainment, as well as household size and composition. The differences according to social class may lead to differences in food choice, whilst cultural background may give rise to certain preferences when food is purchased. According to Sobal (1998) and Rozin (1996), culture plays a central role as far as food, eating, and nutrition are concerned. Cultural influences are observed in the way that food is prepared and best enjoyed in the household. As such, people's beliefs and values will have a prominent effect on food purchases and preference, food preparation, and thus nutritional status. Madiba (2006) explains that people will base food purchase practices not only on their own culture, but also the subcultures that they can relate to as these have a significant influence on individual beliefs and way of living. Primarily, these subcultures will be transmitted to the household by one of the household members or by the community members that the family lives in.

Social context refers to the role and impact of people on an individual's eating behaviour, as well as the setting within which an individual chooses and consumes food. You may find that in some households there is a single person responsible for food purchases, and only that person may govern what kind of food is purchased and consumed in the household. The same person (normally the head of the family, or breadwinner) may also have a huge role to play in the distribution of food in the household, thus influencing the eating patterns and feeding frequency of household members. In most townships in South Africa, the food consumption setting is predominantly at home and may also be in a social gathering which will affect food choice based on the food options available and accessible.

Another significant factor that can be classified under social context is the distance from food suppliers. This is a physical determinant of food access and may influence food type and quantity. In a township setting, food accessibility may be associated with transport issues or crime prevalence causing fear to commute between home and shopping centres. Furthermore, townships are affected by urbanisation that shapes lifestyle and food consumption patterns. Madiba (2006) explains that life in urban areas is more demanding of time, resulting in less time being set aside for food preparation and traditional cooking. Therefore, urbanised people become accustomed to purchasing street food and quick-cook food options. Mensah *et al.*, (2012) reports that a large proportion of these quick-cook or ready-to-eat meals are sold by the informal sector, especially as street food in most areas all over Africa. These types of food reign supreme where salaries are low, unemployment is high, and where urbanisation occurs at a rapid rate.

2.4 Economic determinants of food purchasing practices

According to Madiba (2006), the household income level is an important contributing factor towards food consumption and purchase. Thus, people are bound to increase their food consumption and expenditure as their income increases. Other factors that have bearing on food consumption are the socio-economic characteristics of the household (i.e. the lifestyle attained, how prosperous or how poor the people are, the area of residence, level of education, number of children, and number of wage earners in the household). While the average income influences the consumption pattern, it is found that, as a result of the above-mentioned factors, there are differences in consumption expenditure amongst individual families (Madiba, 2006).

In 2003, a study by the University of South Africa's (UNISA) Bureau of Market Research showed the inverse of these findings. Based on household expenditure patterns by income group, the group of people with the lowest income spent 57.1% of their total household income on food, whilst the higher income group spent only 12.9%. While the proportion is higher for the low-income group, the actual rand value is higher for the high income, due to a higher net income, and probably explains this observation. From this study, it was determined that as income increases, less money is spent on food and more money is diverted to housing, electricity expenses, savings, transport, and medical care.

French *et al.*, (2010) investigated household income differences in food sources and food items purchased, sampling 90 households from a community in Minneapolis, Minnesota, USA. It was reported that higher income households spent more on healthy food and less on unhealthy food options when compared to lower income households. Higher income households were also reported to spend 20% more of their total income on eating out, in comparison with low income households. From the results, the overall amount of money available for food purchase was the main factor related to purchases by household of varying income levels, more than a lack of access to outlets of food.

To be considered under economic determinants are the socio-economic characteristics. Madiba (2006) defines these as the level of prosperity of household individuals, the level of education, number of children or dependants, the number of people earning wages, as well as the area of residence. Differences in socio-economic status will lead to differences in food purchase practices and the consumption patterns thereof. Kiboi *et al.*, (2017) also highlighted the importance of the relationship between socio-economic status and eating patterns. They reported that these socio-economic factors include monthly income, educational level, land ownership, household assets, and employment status. Grobler (2015) studied determinants of dietary diversity in a South African township neighbourhood. It was concluded that eating patterns (and these may be dependent on

food purchase practices) are shaped by the size of the household as well as the age, gender, marital status, and schooling level of the breadwinner.

2.5 Summary of literature

Food accessibility (in physical, economic, and social means) is a component of food security dependent on a household's social and economic characteristics, which will influence food purchasing practices. These characteristics include household educational level, household employment, and income status which will determine purchasing power, household size, the gender, age and marital status of the breadwinner, the type of lifestyle adopted by the household, food preference, the social class, as well as the cultural background. South Africa is considered food secure in terms of food availability; however, a significant number of households continue to experience food insecurity due to the high prevalence of poverty and unemployment. There is generally an adequate food supply from retailers and smaller outlets within neighbourhoods; however, food available for purchase is not necessarily accessible to all due to a high food cost and low income, thus a lack of affordability. Faber *et al.*, (2010) also reported the issue of high food cost, stating rising food prices as one of the factors that trigger vulnerability to food insecurity.

CHAPTER 3: MATERIALS AND METHODS

3.1 Research design

This study design was a cross sectional survey using quantitative and qualitative approaches and both, primary and secondary data sources. A cross-sectional survey collects data to make inferences about a population of interest (universe) at one point in time. Cross-sectional surveys have been described as snapshots of the populations about which they gather data (Leedy & Ormrod, 2013). Cross-sectional surveys can be conducted using any mode of data collection, including telephone interviews, face-to-face interviews, mailed questionnaires, other self-administered questionnaires, electronic mail, web data collection, or a mixture of data collection modes. The research approach in this study was face-to-face interviews using researcher administered questionnaires, in-depth interview guide, and observational checklists to obtain information. It involved a descriptive evaluation of the experiences, behaviour and perceptions of household members in order to understand food purchase practices within the community, and from surrounding food outlets and their contribution towards food accessibility.

3.2 Study setting

The study was carried out in Pietermaritzburg, Kwa-Zulu Natal in the Imbali Township. It is a section of the Msunduzi local municipality that forms part of the uMgungundlovu district. According to Statistics South Africa, the township covers 4.33km² and contains 30 157 residents from 6 650 households. Out of these households, 56.6% have access to water and 94.1% have access to electricity. Established in the 1960's, the township is the biggest township in Pietermaritzburg and is one of the oldest townships in South Africa. It is divided into 12 units namely Unit 1, Unit 2, Unit 3, Unit 13, Unit 14, Unit 15, Unit 18, Unit AA, Unit BB, Unit CC, Azalea, and *Slangspruit*. The population comprises of 99.5% black African ethnicity, and of that, 94.1% are of the Zulu culture.

3.3 Sample size and sampling method

The study included a sample size of 30 households. The sampling design was non-probability sampling with a largely qualitative and slightly quantitative approach, where households were chosen based on the researcher's judgement to assess whether households could provide the information required by the research objectives. Household decision-makers were established before surveying and interviews could commence, and these were the participants of the study.

3.4 Constructs measured and tools

The measurement instruments were designed in reference to existing literature whose primary focus was to determine economic and social determinants of food purchase in urban communities.

Sociodemographic and household parameters - Questionnaires to determine social and economic variables of the household's food purchasing practices. These included a demographic profile of the decision-maker, socio-economic and household food accessibility information (see Appendix A).

Purchasing patterns - In-depth interview guide to determine purchasing practices, including purchasing frequency food types and quantities. The guide comprised of leading questions, where follow-up questions were asked if answers provided were not comprehensive (see Appendix B).

Food types and quantities - Observation checklist to determine the types and quantities of food purchased from surrounding outlets and available in the household on the day of the visit(s) i.e. day one and two (see Appendix C).

3.5 Data collection procedures

According to Gill (2009), there are a variety of methods of data collection in qualitative research, including observations, textual or visual analysis, and interviews (individual or group). Webb and Bain (2016) explained that a cross-sectional study was both descriptive, in that it defined the scope of the problem, and analytic in that it identified causal factors.

Survey instruments consisted of questionnaires, in-depth interviews and observational checklists. Questionnaires were typed and printed out for participants to complete together with the research assistant. The questionnaires were made available in Zulu and English languages, depending on the decision-makers' choice and comfort. Interviews on the other hand, were conversational, informal, and recorded to be typed at a later stage, where the researcher made use of an in-depth interview guide (also available in Zulu language). The questionnaires, interviews, and observational checklists were completed from the 14th of November to the 26th of November 2018, and April 2019 by the researcher. Surveying was done at the decision-makers' own home, at times that they chose over the 14th to 26th November period and April 2019. In preparation for the interviews, the investigation details (as obtained on the information sheet, see Appendix E) were communicated, as well as what was expected from the participants.

On the day of the interviews, the researcher also handed out questionnaires and completed the observation checklists to determine the types of food and quantities purchased from surrounding outlets on the day of the visit. The interview, coupled with questionnaire completion, lasted approximately 30 to 40 minutes. A second visit, four to five days later, was made to each household for completion of another observation checklist to increase assortment in observational research

findings. Secondary data from existing literature was used as theoretical backing for the food purchasing practices investigated.

The compiled questionnaire assisted to achieve the investigation's aims to determine social and economic determinants of food purchase practices, including the establishment of household decision-makers for food purchase. Through interviews (which were verbally administered questionnaires completed to explore views, experiences, and motivations of individuals or groups on specific matters) insight of food purchase frequency and quantities was gained. Semi-structured interviews consisted of several key questions that helped to define areas to be explored, but also allowed the interviewer and interviewee to diverge in order to pursue an idea or response in more detail (Gill *et al.*, 2008). As such, further elaboration of information was acceptable even given that the initial questions were predetermined.

This data collection method was useful in clarifying any questions that may have arisen from analysing responses from the questionnaire. The questionnaire; however, allowed no opinions and contained questions the researcher deemed relevant to the study's aims. Thus, it was important that the participants agreed to participate, as they had the responsibility to answer the set questions truthfully. Olsen (2004) referred to three important guidelines to be considered for questionnaire compilation: the questions should be understandable, with simple sentence structure; they should be specific and provide participants with memory cues; and they should not threaten or embarrass the participant so as not to lead to social desirability bias.

3.6 Ethical approval and permission to conduct study

For ethical approval of the study, an application was submitted to the Humanities Research Ethics Committee of Stellenbosch University and approval was granted with conditions (Project number: *REC-2018-7899*; see Appendix F).

For recruitment, the researcher physically approached households in order to seek permission. Some decision-makers would permit the researcher to survey at the time of recruitment, while others would consent but requested a different day for data collection. During recruitment, participant information sheets (see Appendix E) were issued in the decision-makers' language of choice (English or Zulu) to familiarise them with the study aims, research expectations, and overall rationale of the study; following which decision-makers were required to sign consent forms (see Appendix D) granting permission before interviewing, and surveying could commence. Confidentiality was to be provided and household decision-makers were given pseudo names (e.g. *DM-1*). Participation was voluntary and participants could refuse to answer certain questions or withdraw from participating at any time; however, only complete data sets were analysed.

3.7 Data analysis and reporting

Smith (2005) explained that for accurate interpretation of qualitative data, researchers had to centre themselves in an attempt to achieve a sense of meaning that the subjects give to their own situation. According to Malhotra and Brick (2007), data coding is an important qualitative analysis technique done systematically to break down data into points of interest. This is done to eliminate any bits of information that may not be relevant to the research (particularly from interviews). Household decision-makers (*DM*) were coded *DM-1* to *DM-30* and the data was assembled, collated, and analysed. Analysis of the data took a descriptive and interpretative approach and sought patterns, for the purpose of summarisation, classification, and tabulation in order to understand and explain the food purchasing practices under investigation.

Quantitative analysis of the results from the social and economic variables questionnaire was done on excel and displayed graphically and tabulated to show commonalities and differences between the sampled households. For qualitative analysis, findings from the interviews were classified into themes and used together with the observation checklists to evaluate the contribution of purchasing from surrounding outlets towards the household's food accessibility. Noting the quantities and types of food purchased, and purchasing frequency, gave an understanding of the household's food expenditure, accessibility, availability, and food consumption requirements. Observation checklists were qualitative in providing information on the types of food products purchased, and quantitative in providing information regarding food quantities.

CHAPTER 4: RESULTS

4.1 Introduction

This chapter seeks to present results drawn from the study as per the objectives stipulated in the first chapter: household decision-makers' socio-demographic characteristics, social and economic status of the household and the contribution towards food accessibility, types and quantities of food purchased, purchasing frequency, as well as the contribution of purchasing practices towards households' food accessibility as a component of food security. A total of 30 household decision-makers participated. From this sample size, conclusions could be made regarding the contribution of purchasing from local outlets towards the improvement of household food accessibility. However, the aim was not to give general conclusions representing South Africa's entire urban population, as such, there is room for further research and improvement, such as an increase in the sample size and a more thorough recruitment process. The approach was investigative of households' experience and views regarding food purchasing practices.

4.2 Decision-maker demographic profile and household characteristics

4.2.1 Decision-makers' demographic profile information

The demographic descriptors used were age, gender, marital status, educational level, employment status, and number of dependants. As indicated in Table 4.1, most of the decision-makers (n=12) were aged between 35 and 55 years, closely followed by 40% (n=12) aged between 56 and 70 years. The female gender emerged dominant: 90% (n=27) of the decision-makers were female, while 10% (n=3) were male. More of the decision-makers were single or unmarried (n=17) whilst 43.33% (n=13) were married. Over 40% of the decision-makers reported that they had a tertiary qualification. The employment status was generally high for the sample, 80% (n=24) were employed and 6.67% (n=2) were working and studying. Thus, from this data, 26 out of the 30 decision-makers were employed and only four were unemployed. Furthermore, the number of dependants for eleven (n=11) of the households were three to four, 26.67% (n=8) had one to two, 23.33% (n=7) had five to six, 6.67% (n=2) had seven to eight, and the two remaining household decision-makers had nine to ten dependants.

Table 4.1: A summary of household decision-makers' demographic background (n=30)

	Demographic variables	n (%)
Age	22-35yrs	3 (10.00)
	35-55yrs	14 (46.67)
	56-70yrs	12 (40.00)
	>70yrs	1 (3.33)
Gender	Male	3 (10.00)
	Female	27 (90.00)
Marital status	Single	17 (56.67)
	Married	13 (43.33)
Educational level	Grade 4 – 7	1 (3.33)
	Grade 8 – 10	7 (23.33)
	Grade 11 – 12	9 (30.00)
	Tertiary education	13 (43.33)
Employment status	Employed	24 (80.00)
	Unemployed	4 (13.33)
	Studying and working	2 (6.67)
Number of dependants	1 – 2	8 (26.67)
	3 – 4	11 (36.67)
	5 – 6	7 (23.33)
	7 – 8	2 (6.67)
	9 – 10	2 (6.67)

4.2.2 Household size and age

To evaluate the household environment, households were requested to disclose information regarding their household size, the number of adults (18 years and older) and children (under 18 years) living in the household. Most of the households had four to five members living in, with an average of five adults and one child. The investigation showed that out of the 30 households, 27 families had members under the age of 18 years. Figure 4.1 shows the distribution of household size, figures 4.2 and 4.3 show the number of adults and children respectively.

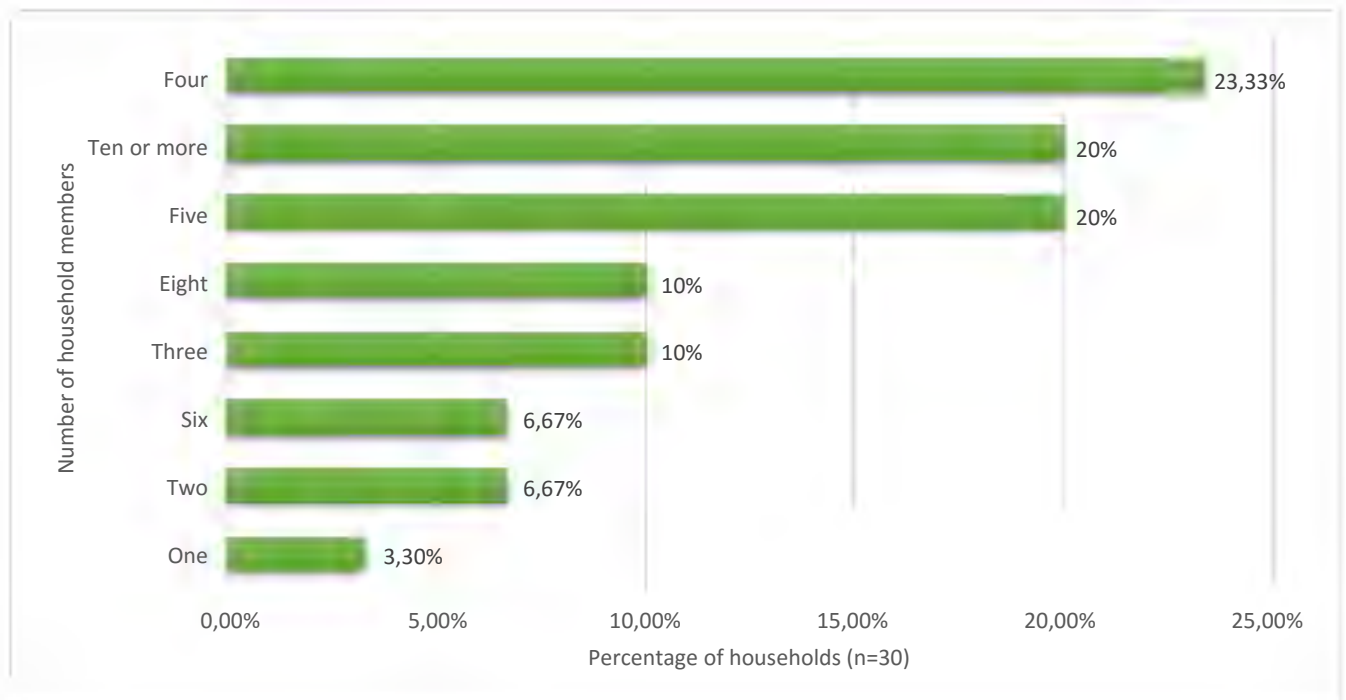


Figure 4.1: Distribution of the sample by household size (n=30).

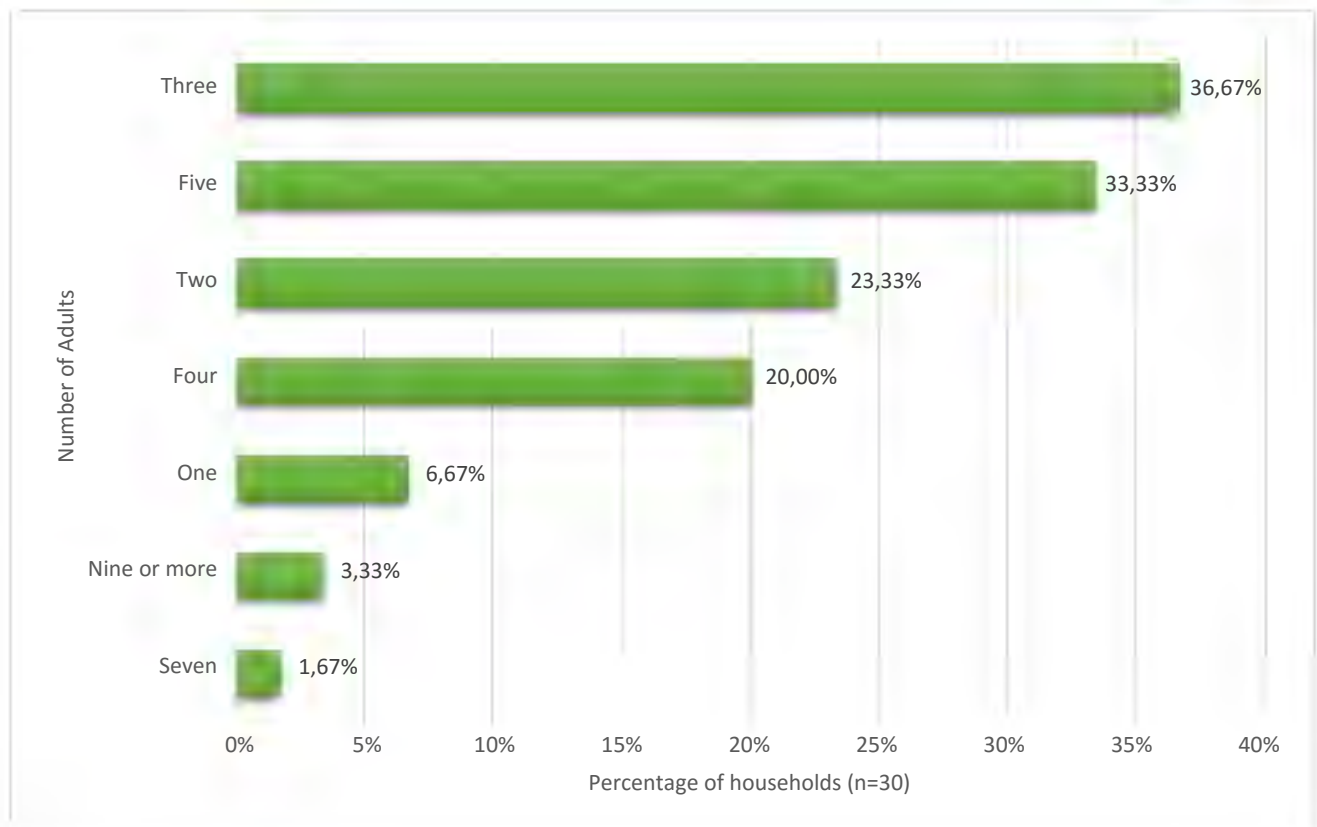


Figure 4.2: Number of adults living in the household (18 years and older).

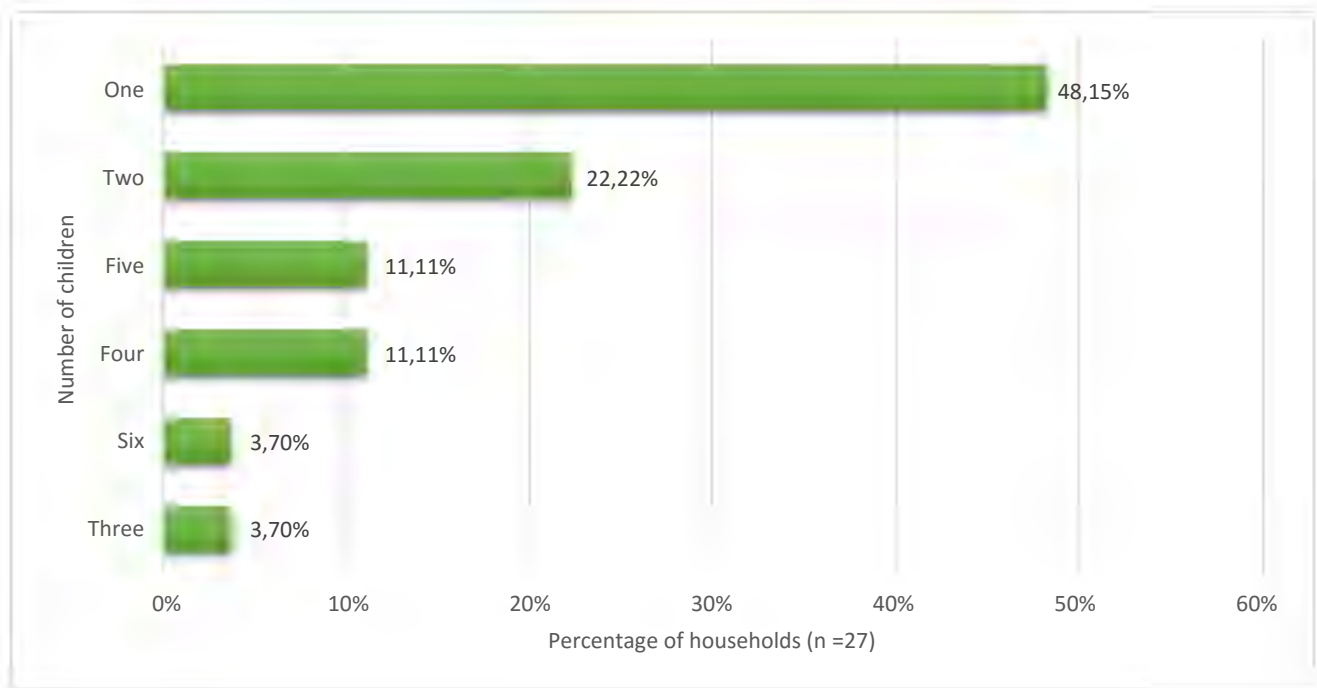


Figure 4.3: Number of children living in the household (under 18 years).

4.2.3 Dwelling type and room number

Figure 4.4 indicates the dwelling type of the decision-makers' houses as obtained from questionnaires. The majority, which equates to 93.33% (n=28), lived in houses built from brick and mortar, and the remaining 6.67% (n=2) lived in informal housing. Table 4.3 shows the distribution of households by number of rooms present. Most of the households had five to six rooms, closely followed by 20% (n=6) having seven to eight rooms, and another 20% of them having more than eight rooms in their houses.

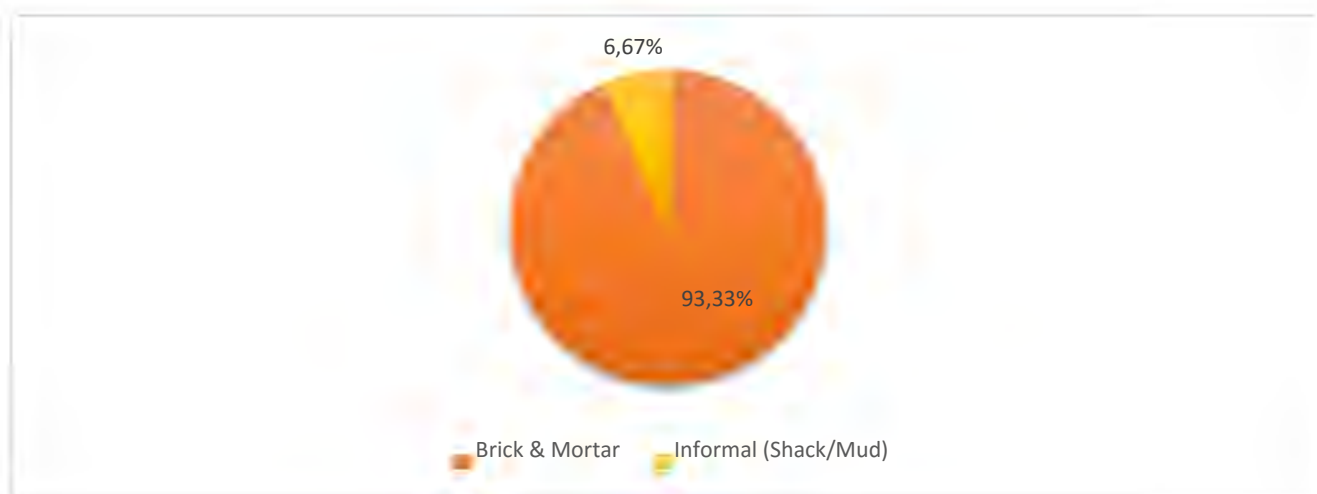


Figure 4.4: An indication of the dwelling type of the households (n=30).

Table 4.2: Household distribution by the number of rooms of their housing (n=30)

No of rooms	n (%)
1 – 2	3 (10.00)
3 – 4	3 (10.00)
5 – 6	12 (40.00)
7 – 8	6 (20.00)
>8	6 (20.00)

4.2.4 Household predictors for food accessibility

Table 4.3 shows the percentage distribution by household in terms of source of energy, water access, refrigeration access, main source of food, and vegetable garden ownership. Most of the households had access to electricity, water, and refrigeration. A total of 96.67% (n=29) relied on supermarkets in town as their main source of food, and 46.67% (n=14) of the sample had vegetable gardens.

Table 4.3: A summary household predictors for food accessibility (n=30)

	Variables	n (%)
Source of energy	Electricity	28 (93.33)
	Gas and paraffin	2 (6.67)
Access to water	Tap inside the house	26 (86.67)
	Tap outside the house	4 (13.33)
Access to refrigeration facilities	Fridge and freezer available	26 (86.67)
	Fridge only	3 (10.00)
	No refrigeration facilities	1 (3.33)
Main source of food	Supermarkets in town	29 (96.67)
	Local general dealer	1 (3.33)
Ownership of a vegetable garden	Yes	14 (46.67)
	No	16 (53.33)

4.3 Socio-economic status of the households

4.3.1 Employment status

Figure 4.5 shows the distribution of the number of people employed, per household. Most of the households either had one or two people who were employed. Five households (16.67%) had more than three people who were employed, four households (13.33%) had three people who were employed, and three households (10%) had no one working. The study also enquired about the reasons some decision-makers indicated that they were unemployed ($n=4$), these results are graphically represented in Figure 4.5. From the portion that were unemployed, one decision-maker (*DM-11*) reported to be in possession of a tertiary qualification and was actively looking for employment. Two of the unemployed decision-makers (*DM-1* and *DM-2*) were unfit for work and *DM-6* preferred not to work, and this is a decision that was made in consultation with her partner.

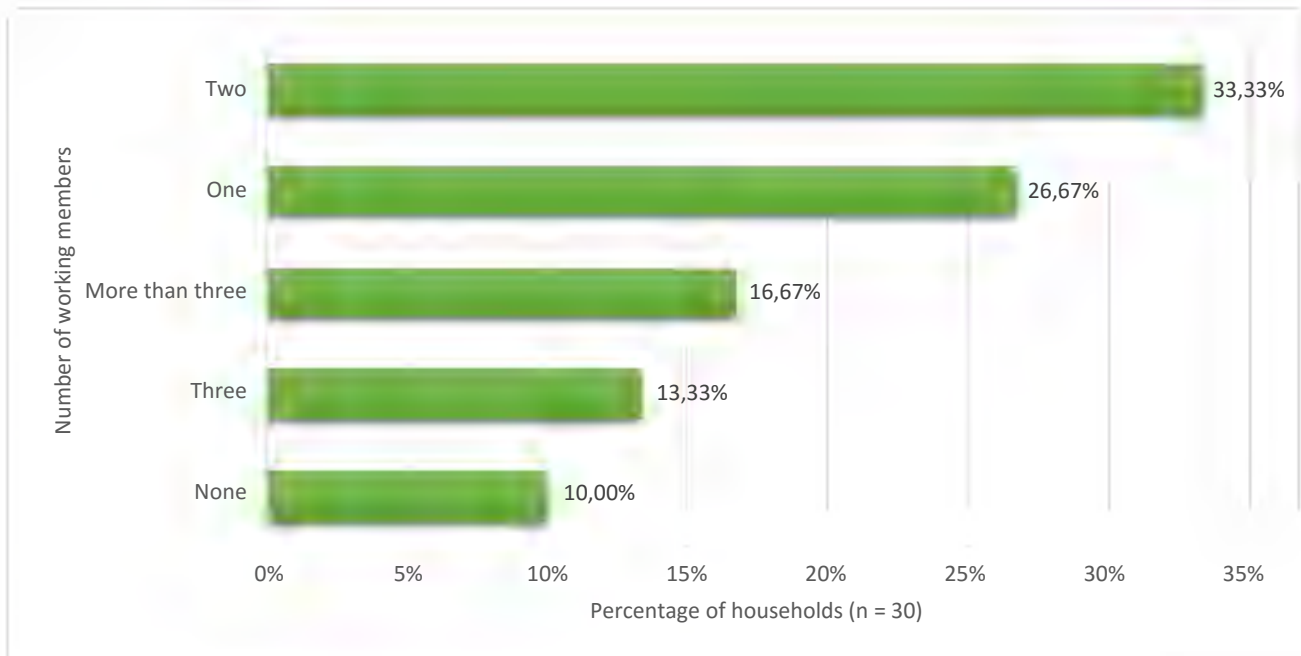


Figure 4.5: Number of people who were employed in the household.

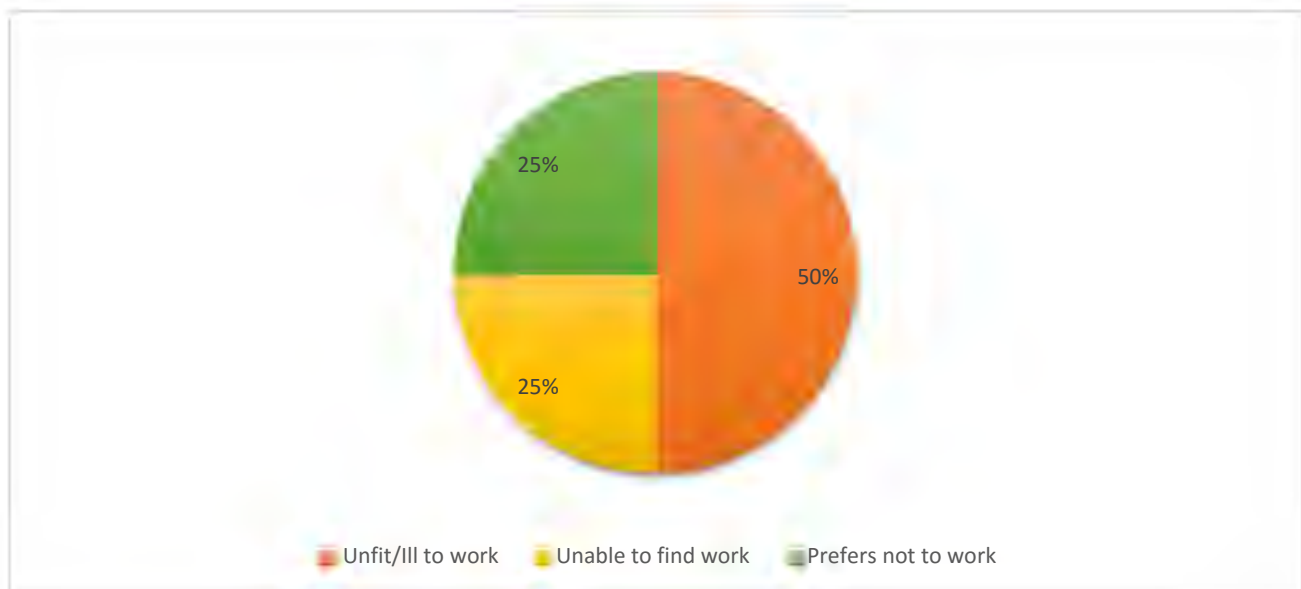


Figure 4.6: Reasoning for unemployment (n=4).

4.3.2 Income status

Figure 4.7 shows the distribution of households by total monthly income, 47% of the households earned more than R10 000 per month, 27% earned between R 5 001 to R10 000, and the other 27% earned between R3 501 to R5 000. Upon investigation, some households appeared to have alternative sources of income other than the money obtained from their jobs, regardless of employment being full-time or coupled with studying. Figure 4.8 shows the distribution of households by alternative sources of income. Most of the households (n=13) 43.33% reported social grants as the main alternative source of income. This was followed by 40% of the sample (n=12) reporting reliance on business for secondary income. Eleven households (36.67%) received assistance from relatives and seven households (23.33%) were occasionally assisted by friends. Two households reported receiving insurance policy pay-outs on a monthly basis, and this was an alternative source of income for them.

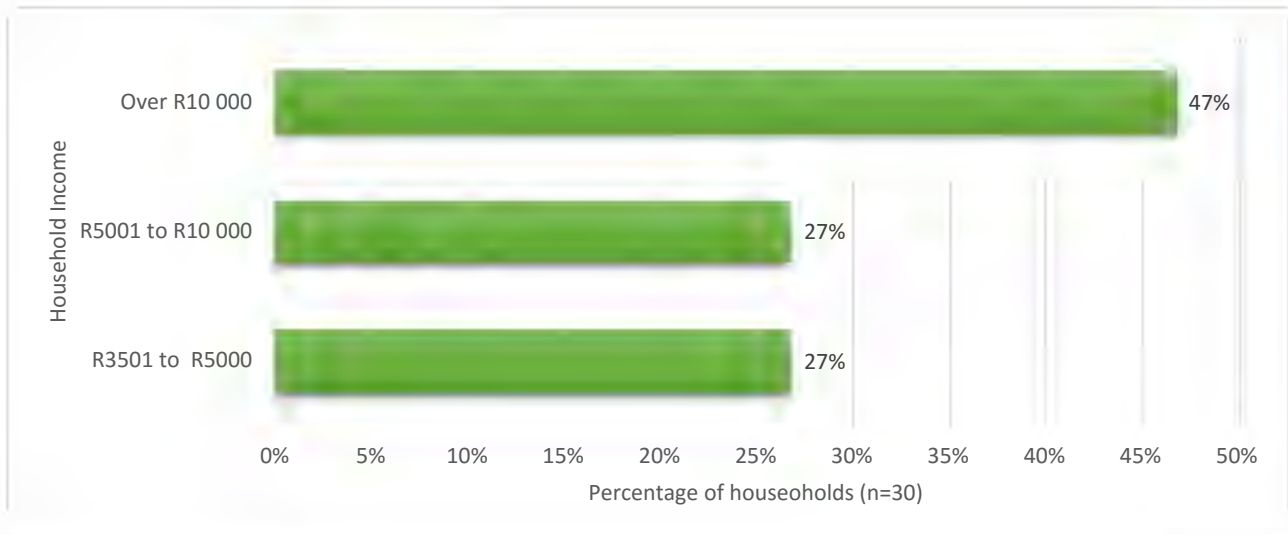


Figure 4.7: Percentage distribution of households by total monthly income.

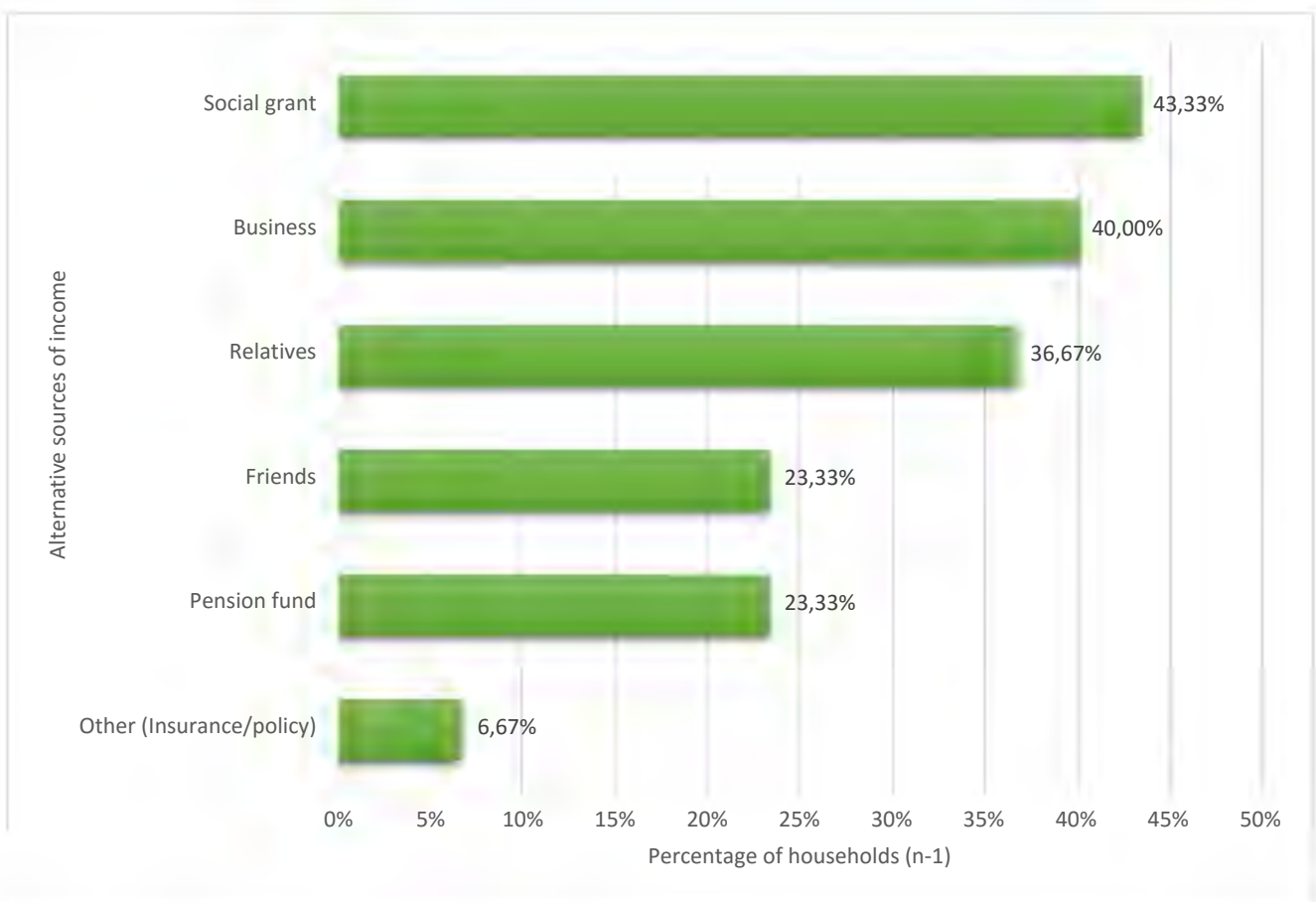


Figure 4.8: Percentage of households by alternative source of income.

4.4 Food purchasing practices

4.4.1 Food expenditure

Figure 4.9 represents the distribution of households by the amount of money spent on food on a monthly basis, this was from food purchased in town and from shops within the community. A total of 14 households (46.67%) spent more than R3 501 per month on food. This was followed by 10 households (33.33%) reporting spending in the range of R2 001 to R3 500, while 16.67% of the households (n=5) spent between R1 001 to R2 000, and one household set aside R700 to R1 000 for monthly food expenditure.

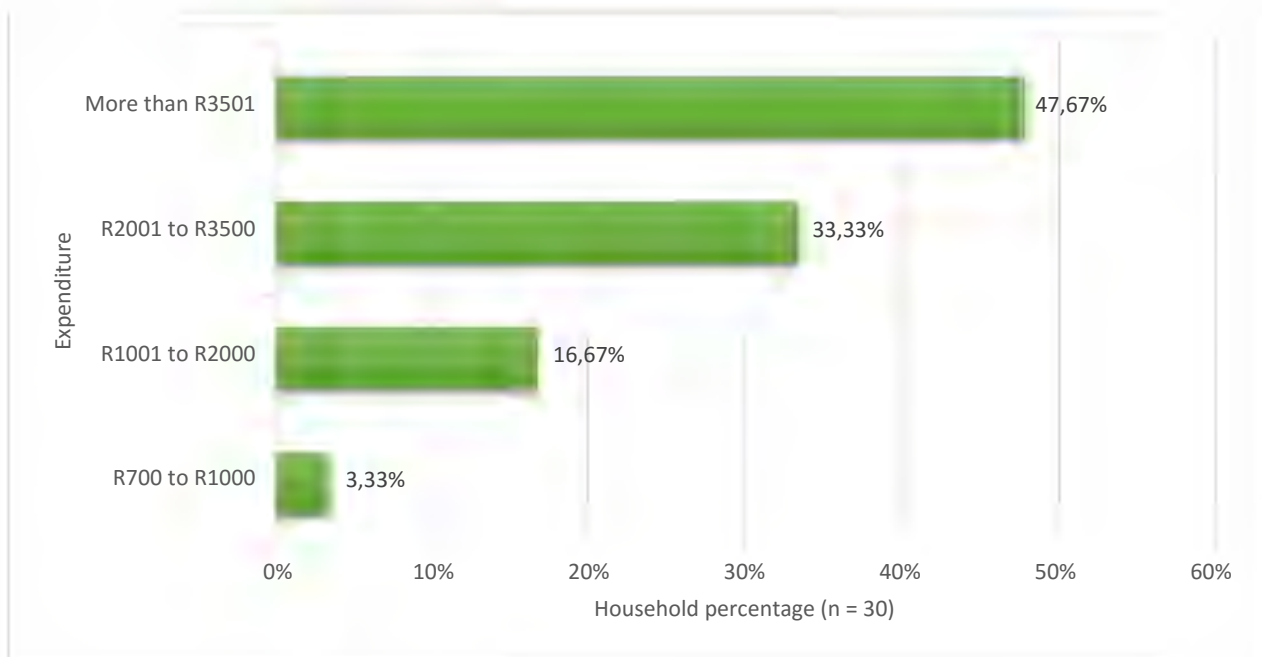


Figure 4.9: Percentage of households by monthly food expenditure.

4.4.2 Food purchasing frequency

Food purchasing frequency, as depicted in Figure 4.10, showed that 43.33% of the households (n=13) purchased food once a month. A total of ten household decision-makers (33.33%) purchased twice a month, and 23.33% (n=7) purchased four times a month.

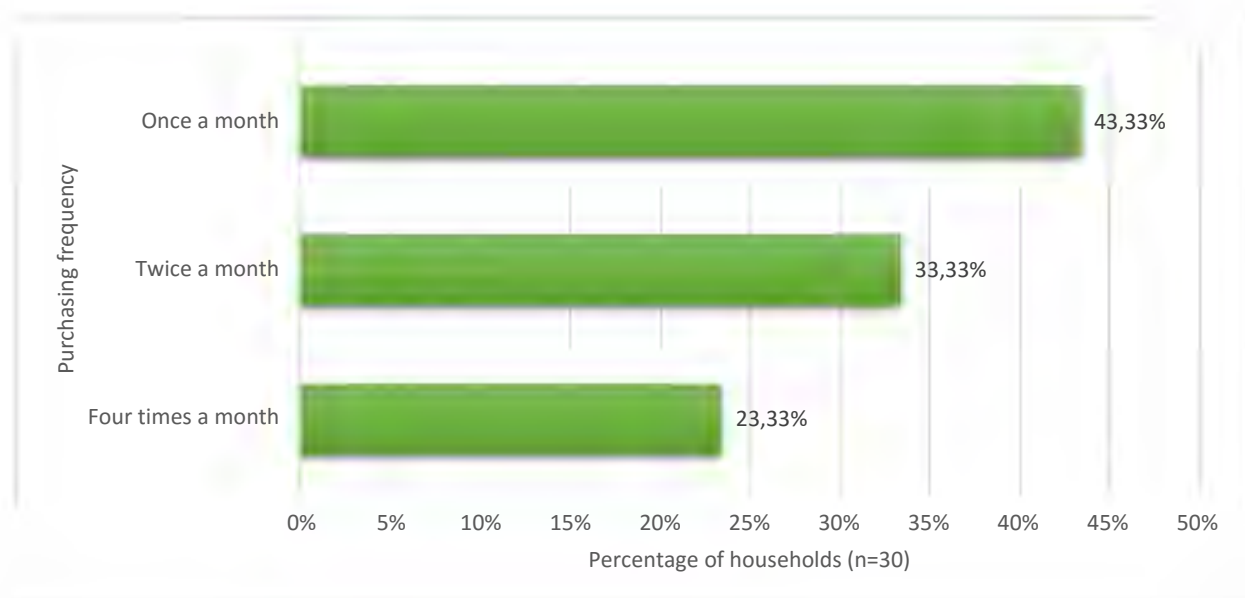


Figure 4.10: Household distribution by purchasing frequency of groceries.

4.4.3 Types of food products purchased and quantities

All decision-makers were able to identify the types of products that they normally bought and were able to communicate whether they were always able to get these items or not. Table 4.4 shows food items that household decision-makers reported purchasing during in-depth interviews. Table 4.5 follows; depicting results from the researcher's observation of food that was purchased and available in the household on the days of the surveys, two visits to complete the observation checklist were made to each household. Some of the food products listed had already been consumed and were reported by the household decision-makers as food purchased on the day of the visit. Bread, carbonated drinks, and milk appeared to be the most purchased items by the households.

Table 4.4: Food types mentioned during in-depth interviews

Food groups	Starches	Beverages	Meat	Vegetables	Fruits	Dairy	Ready-meals	Other
Food Items	Maize meal, sorghum, malt, samp, bread, biscuits, sugar, flour, ¹ <i>amabele</i> porridge.	Juice, carbonated drinks.	Tinned fish, eggs, live chickens.	Beans, tomatoes, potatoes, onions, gem squash, tinned corn, peppers, chillies, cabbage.	Bananas.	² <i>Maas</i> , milk, milk powder.	Fried chips, ³ <i>boerewors</i> rolls, ⁴ <i>vetkoek</i> , polony slices, chicken feet, hotdogs, ⁵ <i>mogodu</i> , boiled pork, tinned ⁶ <i>chakalaka</i> .	Salt, baked beans, cooking oil, baking powder, Epsom salts, tartaric acid, bicarbonate of soda, snacks, cocoa powder, stock cubes, tea, vinegar, margarine.

¹ Ndebele, Zulu, Xhosa, seTswana: *amabele*, sorghum

² Afrikaans: *Maas*, thickened curdled or sour milk. A traditional staple food commonly used by black Southern Africans with an appearance and taste like yoghurt.

³ Afrikaans: *Boerewors*, popular South African sausage made from ground beef and pork, seasoned with a variety of spices; also called *wors*.

⁴ Afrikaans: *Vetkoek*, unsweetened, deep-fried dough; also called *fat cakes* or *vetkoekie*.

⁵ Sotho: *Mogodu*, tripe.

⁶ Informal: *Chakalaka*, A salad of Indian/Malay origin made from onion, chillies, curry, garlic, ginger, green pepper, carrots, cauliflower, cabbage.

Table 4.5: The types and quantities of food purchased from surrounding outlets, as observed on day of visit by researcher

Food class	Type of food	Brand	No. of households where food is observed	A comment on quantity
Baked goods	Brown bread	Albany, Sunshine, Sasko	12	A range of one to three loaves, at 700g each, depending on family size, number of people working and children.
	White Bread	Albany, Sunshine, Sasko	14	
	Biscuits	Bakers	1	Two packets purchased (500g).
Canned goods	Tinned pilchards	Lucky Star	3	One household bought one tin (400g), the other had two smaller tins (155g each).
	Baked beans	Koo	1	One unit (410g).
	Corned beef	Bull Brand	1	One unit (300g).
Dry/ savoury	Sorghum malt	King Korn	2	Six units purchased (each weighing 1kg).
	Salt	Cerebos	2	One unit per purchase (500g each).
	Samp	Crossbow	2	Two packets purchased (500g each).
	Beans	Crossbow	1	One packet (500g).
	Knorrox cubes	Knorr	2	Each household had a single pack of two, each cube was 15g.
	Instant yeast	Anchor	1	One unit (10g).
	Tea bags	Glen	2	One packet with 20 tea bags.
Beverages	Cold drink (carbonated drink)	Coca-Cola	7	A range of one to two litres per family.
Dairy	Maas	Honeydew	2	One household had 2L, the other had two units of 500mL each.

	Milk	Fair End Dairy, Clover, Crystal Valley	6	Households bought a range of 500mL to 1L bottles. Smaller families would purchase smaller volumes.
Snacks	Snacks (chips)	Truda, Simba	2	Packets available ranged from two to four units. More prevalent in households where there were kids.
	Tinkies	Tiger brands	1	Five units available.
	Popcorn seeds	Imbo	1	One packet (500g).
	Peanuts	Simba	1	Two packets (50g each).
Meat/poultry	Eggs	Nu-laid, Top Lay	3	Two households had purchased half a dozen – smaller family. The other family was larger, and purchased a tray of 30 eggs.
Fats and oils	Cooking oil	Excella	1	One unit of 500mL.
	Margarine	Rama	1	1 250g unit.
Fresh produce	Cabbage		1	One unit.
	Onions		4	Fresh produce was packaged in see-through plastic bags, for purchase at R5, R10, and R20 respectively. Highest number of units available was for R20.
	Tomatoes		5	
	Bananas		1	
Deli/ready-to-eat	Fried chips		2	Two packs of fried chips purchased by one household (referred to as size small and cost R8). One pack of grilled chicken was purchased (shops only sell these at a single price of R50 per pack).
	Grilled chicken		1	

4.5 Results from in-depth interviews on food accessibility

4.5.1 Decision-making on purchasing of food items from outlets within the community

Most of the decision-makers (n=29) indicated that major food retailers took first preference when groceries were bought. Purchasing locally was generally done under urgency and if a certain food item had run out. Thus, the type bought would depend on what was needed or preferred by the household decision-maker and other household members. *DM-15* and *DM-21* pointed out that when food was needed, whether they obtained the brand they were looking for or not was not that significant, what was important was the ability to meet the household's food requirements.

An added convenience was that outlets within the community were easier to get to than to travel all the way to the food retailers in town. From analysis of the responses, the rate at which food ran out depended on family size and food purchasing frequency. *DM-10* reported that she would occasionally take some of her food to cook for the children at the pre-school that she owned and that led to some items running out quicker than others. For most of the households, the decision to purchase would typically be made by a single person, mainly the breadwinner or the mother of the household. For households with own vehicles, the availability of fuel to enable travel to town or retailers would also inform the decision of whether food was bought locally or from supermarkets in town. From the total of the households that participated in the study, only three of them (*DM-3*, *DM-13* and *DM-15*) had males as the decision-makers. Of these, *DM-3* reported that even though it was his wife and daughters that would do stock-taking prior to food purchase, the decision to buy was up to him because he would be responsible for the cost. So, whether an item was bought or not depended on whether he had the funds required to secure the purchase. *DM-9* communicated that the lack of time for proper food preparation was another reason for buying locally, reporting that in the absence of time and having lives that are consumed by work commitments, outlets that sell ready-meals came in handy.

Food items purchased would be consumed at home, as packed lunch for school or excursions by the younger children (n=27), and at work. *DM-4*, *DM-8*, *DM-23*, *DM-26*, and *DM-29* indicated that food purchase from surrounding outlets was done rarely, more so because retailers in town were more accessible to them and they would make time to purchase food they needed after work and had vehicles to commute between home and town. *DM-5* reported that purchasing locally was also a way of supporting her granddaughter's business. There would be instances where the family would obtain the food items on credit, which was of great benefit, particularly for times of the month when money was scarce. For other households, where the mother of the house was the decision maker but not necessarily the highest earner (*DM-1*, *DM-5*, *DM-6*, *DM-11*, *DM-12*, *DM-22*, *DM-23*, *DM-25*, and *DM-30*), the other household members with income would cover the cost of the food items needed.

There were mixed responses regarding the frequency of food stock-taking. Decision-makers however, highlighted the importance of bulk purchases and stock-taking, and that they only committed to stock-taking when it was time to do groceries in town. It was not always possible to take the time to do it thoroughly, which is why they would resort to purchasing locally and be forced to settle for the smaller packaged food items that surrounding outlets had on offer. In some cases, a food item would be forgotten when groceries were purchased, *DM-7* reported “*how often I buy food would vary, depending on how often I would forget to buy something in town or when we run out of a particular food item.*” The general pattern is that there would be the realisation that something had run out during food preparation and so the decision on the type of food purchased would solely depend on what needs to be replenished.

4.5.2 Household income status, food expenditure, and purchasing frequency

Most of the households purchased their groceries once a month. Decision-makers communicated that the time that they would go purchase their groceries in town was around the time that working members or breadwinners obtained their salaries. The 10 households (33.33%) that would purchase groceries twice a month either had two people working or two occasions that they would receive money from their income sources. It was either the people that worked which had different pay dates (e.g. the 15th and 30th of the month), or social grants would come around the beginning of the month, followed by assistance (from relatives or family friends) at a later stage. *DM-4, DM-5, DM-6, DM-8, DM-23, DM-28, and DM-29* (23.33%) reported purchasing groceries every week, equating to four times a month. From reports during interviews, most of these decision-makers worked in town or had vehicles, which made frequent travel to retailers easier. Some of them however, purchased food more often due to having limited storage space for larger quantities of food. *DM-6* and *DM-28* reported that they would purchase food four times a month because the household head or breadwinner would get paid once a week, so food purchases for them had to be aligned with pay dates.

For the current study, most of the households spent more than R3 501 monthly on food purchases. Typically, households that would spend this much were in the ‘R5 001 to R10 000 and more’ monthly income bracket. For all households, decision-makers reported that food purchase ranked high on the list of household expenses. *DM-5, DM-10* and *DM-12* indicated that food was fuel and essential for life, as such, there was no functioning without it. Decision-makers emphasised that there were other household needs to attend to that were just as important as food purchases. This included electricity, transportation to school and work, medical aid or health care, education or tuition fees, school uniform, rent, rental for family business, house maintenance, re-filling of gas cylinders, cleaning products, and personal care products. The results further showed that the households ranged from low to high income. From the results, there existed a direct relationship between

household income and the number of people that was employed. For most of the households with three or more people employed, the monthly income was R10 000 and more. Three decision-makers (*DM-7*, *DM-12*, and *DM-22*) reported that their main source of income was their pension fund as they were retired; *DM-2* reported the receipt of two social grant pay-outs (an old age grant and a disability grant) every month. *DM-2* suffered an injury that declared her unfit for work, but is now receiving an old age grant from the government.

From analysis, households that spent R700 to R1000 on food purchase were in the R3 501 to R5000 monthly income bracket. These households were also generally characterised by unemployment, low educational level, and dependence on social grants and financial assistance from family, friends, and relatives.

4.5.3 General attitude towards purchasing food items locally

Most of the decision-makers had a positive attitude towards buying food from surrounding outlets. They reported that the shops were in the vicinity of their homes and thus easy to access. They pointed out the convenience that this had and the significant contribution towards improving their households' access to food. *DM-9* explained that she seldom had time to cook when she came home from work, leaving her with no choice but to purchase ready-made products from one of the shops in the neighbourhood.

Although these outlets were closer to households in comparison with retailers in town, there were mixed responses in terms of satisfaction with their distance from home. Whilst some households would communicate that the shops were right around the corner, others would express that they were slightly too far, which made it difficult to send someone or to go purchase an item in the evening. As such, for some households, the distance raised safety concerns. Some of these shops were reported to also be taverns or liquor stores and would often have people under the influence, whom some of the decision-makers (*DM-5*, *DM-6*, and *DM-7*) perceived as unpredictable and not to be trusted. *DM-5* explained how the service was poor at times, detailing instances of how they experienced rudeness and got short-changed. *DM-8* explained how she was dissatisfied with the shops' hygiene and was generally sceptical about the quality of products; *DM-26* expressed disappointment regarding how one would not always be able to find what they were looking for. When the decision-makers were not able to find what they were looking for, they would wait for the products to be restocked, go to other local shops, or resort to travelling all the way to town. It was for this reason that *DM-26* reported purchasing from local shops occasionally, because it would be disappointing if her needs were not met. In some cases, alternative food arrangements would be made. For example, according to *DM-6*, if the original desire was to make chutney and tomatoes

were unavailable, she would make potato stew instead. If there was no bread, they would resort to purchasing ⁷*vetkoek*, if there was cooking oil, they would either grill or boil meat for supper.

4.5.4 Preference between surrounding outlets and supermarkets in town, as well as price comparison

Most of the households (n=29) showed preference of major food retailers in town as their main food source over outlets within the neighbourhood. Five decision-makers from these households however, expressed that although their preference was shopping in town, getting there was costly. *DM-1* said “*I take a cab which charges R180 to and fro*”, *DM-3* said “*I prefer buying in town, sometimes we would just rush to town as we have a car if there is something we need but petrol can be a problem.*” *DM-12* said “*Retailers in town are cheaper but you would still have to fork out taxi fare, R26 for a round trip and an additional R6 if you have to travel downtown to the taxi rank*”, and *DM-25* and *DM-30* reported that having no vehicles added to the difficulty of travelling to town to purchase food. Another common concern was the higher food cost compared to retailers in town. Food items at the smaller shops were sold at higher prices and were likely not to be costed properly.

Specific reasons cited, regarding preference of retailers in town, included the following:

- Eggs are a lot bigger in size and cheaper in town,
- Bread is cheaper in town,
- You can obtain larger packs of food or quantities e.g. 10kg of sugar instead of the 500g you would normally get from local shops,
- You will always find what you are looking for. Shops in town are bigger and stock larger quantities,
- There is no worry of bumping into drunks, which would normally be the case at local shops that are also liquor stores,
- There are more shops to choose from in town,
- There is a wider variety of brands to choose from, so you are spoilt for choice,
- You can attend to other household needs when in town e.g. buying clothes, doing hair, paying for funeral cover, paying for DSTV, buying or paying for electricity etc.

DM-20 explained that preference between supermarkets in town and surrounding outlets was situational, saying: “*In cases where I need something urgently or I do not have money to travel to town, then surrounding shops take first preference*”. It is only *DM-13* that had first preference of outlets in the surrounding community, substantiating this preference by reporting that these outlets were closer to home, which was an obvious convenience. *DM-20* emphasised that, for whatever

⁷ Afrikaans: Vetkoek, unsweetened, deep-fried dough; also called *fat cakes* or *vetkoekie*.

item was bought, she would ensure that everybody had access to it. *DM-24*, *DM-25*, and *DM-30* also emphasised the importance of purchasing adequate quantities, ensuring that all household members could eat. They reported that although the shops within the community sold smaller volumes or pack sizes, they would purchase multiple packs to ensure enough for the household's food consumption requirements. The quantities purchased would thus depend on the family size, how much money is available for purchase, the occasion at which the food would be consumed, and the product volumes or quantities supplied by the outlets.

4.5.5 Product quality in terms of freshness, taste, appearance, and smell

Most of the households ($n=25$) reported being completely satisfied with the quality of the products they obtained from surrounding outlets. Although most were generally pleased, a few were unimpressed with the cost of certain products compared to those sold by retailers in town. In terms of quality, *DM-7* and *DM-20* detailed experiences of dissatisfaction with maize meal. *DM-7* found black insect-like creatures in a packet of maize meal but added that they had experienced the same thing from a similar product purchased in town. *DM-20* complained that the brand of maize meal they got from these shops was darker in colour than the one they usually bought in town. *DM-8* explained that her problem with the shops was hygiene and not product quality, it is for this reason that her first preference was always to purchase from retailers in town. It was important to note the influence that bad hygiene, or a lack of cleanliness, may have on food contamination, food spoilage, and thus customer loss. *DM-10* reported an instance when the bread that they had bought smelled like paraffin. *DM-9* purchased grilled meat and reported that it was not fully cooked. She added how much of an inconvenience that was, particularly if coming from work and you had been seeking a quick and easy food option.

4.6 Summary of results

Decision makers were comprised of 27 females and 3 males, where the majority were aged between 35 and 55 years. The decision to buy was governed by availability of funds, as well as the need to replenish finished products to meet household food requirements and preferences. From the demographic profile, 93.33% of the decision-makers had dependants, 86.67% were employed, 43.33% had tertiary qualifications, 30% were educated up to grade 11 and 12, and 43.33% were unmarried. In terms of household characteristics, there was a variety of total number of household members reported, the common numbers being four, five, and ten members. Most of the households had three to five members living in them and from the twenty-seven households with minors living in them, thirteen had one child. Twenty-eight of these households had houses built from brick and mortar, whilst two lived in houses made out of mud.

Household food accessibility predictors were energy source, access to water and refrigeration facilities, main source of food, and the presence of households' own vegetable garden. Twenty-eight out of the thirty households surveyed had access to electricity, twenty-six had water access, twenty-six owned refrigeration facilities, twenty-nine reported food retailers in town as their main food source, and fourteen owned vegetable gardens. Households had a positive attitude towards purchasing food items from food suppliers within the community, reporting the convenience of these shops being close by. The reasoning for these shops not being the dominating primary source of food is due to the higher cost of certain food items, the lack variety in terms of brands, retail of smaller pack volumes, some items being unavailable when needed, and concerns over product quality and store hygiene.

The sample was characterised by a high employment rate, where only three of the thirty households had no person working. The number of household decision-makers that were unemployed was four; two of them were unfit for work, one preferred not to work, and the other was actively looking for a job and had not been successful in finding one at the time being. The percentage distribution of households by monthly income showed that 47% earned over R10 000, 27% earned between R5 001 to R10 000, and the other 27% earned between R3 501 and R5 000. Alternative income sources included insurance or policies, pension fund accounts, monetary gifts from friends and relatives, businesses and social grants; wherein businesses and social grants emerged dominant.

Food expenditure ranged between R700 to over R3 501, with 46.67% spending over R3 501 on food, and 3.33% spending in the range of R700 to R1 000. Decision-makers would commonly buy food once or twice a month, depending on the number of days in a month that breadwinners receive their salaries. Various food types were bought, these were reported from in-depth interviews and some of the mentioned items were in fact observed by the researcher. These ranged from maize meal, flour, bread, sugar, some beverages, meat products, fruits and vegetables, dairy, as well as ready-meals.

CHAPTER 5 DISCUSSION

and the quantities you would have bought on that day will be noted, Using in this study was to investigate the place after five days to observe food purchase practices that household will be required to sign a consent form before participating in the fieldwork and household food accessibility and the English as below will be based on the pre-determined objectives of the study.

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5.1 Responsibility and decision-making for food purchase in the household

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In purchasing natural and synthetic functional foods in Malaysia. Socio-demographic factors such as gender, educational level, household size, area, and age were used to determine the relationship between consumer knowledge and purchasing frequency. Although their study sample included different cultures i.e. Chinese, Malays, and Indians, the result showed that 53.6% of the participants were female, and 46.4% was male. Although the cost of food purchase is not always covered by the food purchase decision-makers, females are regarded as nurturers in most households and are commonly also responsible for food preparation and distribution within the household, it thus makes sense that they dominate in terms of household food purchase decision-making.

5.2 Demographic profile and household characteristics

For this investigation, although the female gender emerged dominant in food purchase decision-making, for two of the female decision-makers (*DM-6* and *DM-30*), food purchase decisions were made in conjunction with their partners; so as the mothers of the house they would be the first to know when a food item needed to be bought; however, they would still need to consult their partners in making the decision to buy the items/s. *DM-3* formed part of the male proportion of decision-makers. He would be informed by his partner if an item was required and would have the final say, as he was responsible for covering the expense; it is for this reason that considering decision-maker marital status may be important as food purchasing decisions may be a partnership effort or may be part governed by the male figure. From the sample of the current study 56.67% were single and 43.33% were married. The study sample by Phuah *et al.*, (2015) had 61.1% married participants and 38.9% were single.

Participants, the types of food and the quantities of food that they consumed in each month. The average being about six to ten members, who take place every four to five days, old size (with a family of ten members). Similarly, the study by Sakyi (2012) reported a large household size. As interviews and share characteristics, most of the households they sampled had six to ten members. From the study by French *et al.*, (2010), on average, households comprised four people, the dominant configuration being two adults and two children. Where the household size was large, the number of people employed was higher, the total monthly income was higher as so was food expenditure.

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Informal housing is generally characterised by smaller room size, and fewer rooms, thus making food storage space a challenge. Another problem would be access to water from within the household and electricity, consequently, a lack of electricity access translates to a lack of refrigeration facilities and thus food is not properly stored. As such, and this may also depend on household size, these families may have to purchase a smaller number of food items more frequently as a consideration of space and to avoid wastage, and not necessarily as an indicator of high income.

The exploration of main food source and ownership of a vegetable garden gave information on how households' food requirements are met. None of the households indicated ownership of land for food production. There were some that reported the use of home gardening as a contributor towards their households' food accessibility and thus food security. They reported seasonal propagation of spinach, shallots, beetroot, chillies, mealies, potatoes, garlic, peaches, and avocados, amongst others. Household decision-makers were also requested to indicate their main source of food and 96.67% (n=29) reported depending solely on retailers in town for their food supply. From this report, the important role played by supermarkets in town was emphasised. The same result was observed by Sakyi (2012) on food accessibility determinants of rural households in districts of the Limpopo province. According to their study, only a few households relied on home gardening or own food production. A large proportion of them were heavily reliant on market purchases for their food supply needs to be met.

From the 14 household decision-makers that reported having vegetable gardens, there were reports that gardening would often be difficult due to the condition of their land, the expense of garden maintenance, and the lack of proper gardening knowledge and time. This prevented home gardening from being the main source of food or fresh produce. *DM-18* explained "*I have a garden but the size and condition of the land is not that great, planting can be difficult and it is only so much that you can*

plants, DM-20 said, "We have a vegetable garden, but the space is limited, so that the vegetables that would be needed to fulfil DM-10's food plan would be difficult to grow. DM-10 will take place about four high-fives of snatching and completed a second class of garden. DM-10 will be required to sign a fertilizer and insecticide, and participate in the survey. The survey will be in Zulu and English, as per the fit.

Faber *et al.*, (2010) focused on community-based activities for food and nutrition security. The study reported that home food production played an impending role in improving women's involvement in household decision-making, household dietary intake and increasing household earnings if the surplus from harvest was sold. Abdul-Raheem and Worth (2011) described this as the **What will happen to the information I give?**

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5.3 Socio-economic status of the household

The income status of the household aligned with the high employment status observed, as well as educational level. Generally, for household decision-makers with their highest education attained at tertiary level, there was also a higher monthly income and food expenditure. Turcinkova and Slavkova (2012) investigated the relationship between education attainment and household income in Czech Republic. The level of education of each household was determined based on the educational level of the person with the highest income, whom they termed the head of the household. The results were displayed for the years 2005 and 2009. For both years, households with tertiary education had the highest mean income. In 2005, the mean income was 17 961 CZK, more than two times the income of households with elementary or no education. The same trend was observed in 2009, where the mean income for households with tertiary education was 23 029 CZK, more than double the mean income of households with no education. Although higher education level of household heads does not always guarantee reduced risk of poverty, households with a high level of education generally appear to be in a better situation than households with lower levels of education.

Analysis of household socio-economic status required a review of the distribution of the number of people employed per household, and most of the households either had one or two people employed. The study also sought to find the reasons for the decision-makers that indicated that they were unemployed: as graphically represented in Figure 4.6. Two of the unemployed decision-makers (*DM-1* and *DM-2*) were unfit for work and *DM-6* preferred not to work, and this is decision that was made in consultation with her partner. One household decision-maker (*DM-11*) was in possession of a university degree but was unemployed, thus it is not always the case that the ownership of a tertiary qualification translates to employment and a high-income status, although this may be a temporary situation. Sakyi (2012) analysed the distribution of household food security status by the level of education of the household head. The educational level ranged from no schooling to degree

permission, and the types of food and was a diet that you would have to buy with an initial day in the kitchen. During the first 3 weeks of the study, you will be asked to keep a food diary to school and complete a food access checklist. You will also be asked to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

The alternative income sources varied from household to household. Dependence on social grant and businesses prevailed for alternative income generation. There was a single household (DM-2)

whose main income source for daily living was the government's social grants and this is one of the

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households where the decision-maker was unemployed due to being unfit for work. From this information, the data is to be analysed by Fundisive Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention

will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own

home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

It is indicated that, although social grants were significant contributors towards improving food accessibility and securing food for households, the funds may not be sufficient to cover the cost of

home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

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worker, mentioned how he would at times, obtain lunch from the clients that he would be working

for. Abdu-Raheem and Worth (2011) referred to this as the *assistant pathway* of addressing food

security: households depend on transfers or remittances from their relatives in order to meet some

of their nutritional needs.

Sakyi (2012) also emphasised the important contribution of social grants towards household income.

From their analysis of income source, 26% of the household heads in their study engaged in formal

work and obtained their main income from formal salaries. Formal salaries had a desirable

contribution towards household income and consequently food accessibility. Most of the households

(35.5%) relied on pensions and old age grants as their main income, and 5.2% had social grants as

alternative income sources. Grants combined, made up 56% of the total household income.

5.4 Types of food purchased, purchasing frequency, quantity of food, and intended purpose

There were some commonalities between the households in food types purchased, particularly in

the case of starches, baked goods, fresh produce, beverages, and dairy products. Some products

that were mentioned during in-depth interviews (Table 4.4) were also observed during completion of

observation checklists (Table 4.5). The quantity of food purchased, in terms of the number of packs

bought and unit mass or volume, depended on the household's requirements, money available,

purpose for which the item is bought, and the supply by the outlet from which the purchase is made.

larger families types of food and the quantities of food and spent more money on food purchases than the other household types. This is what my data after my five days of observations and interviews, who conducted the Youavhshiprepared to sign a household size form for household participating and household expenditure of food. The study English, that, specifically, the behaviour of households should relate to food expenditure as their household size increases. From this study, data analysis gave a different outcome, as household size increased there were other household expenses that took first preference and demanded attention, as the number of people living in the household increased. The opposite was found in a study by Sekhampu (2012), who investigated the socio-economic determinants of household food expenditure in low income households from a township in South Africa. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed. For further information, please contact

Analysis of the monthly food expenditure as a proportion of income showed that larger households (of seven members and more) spent the most money (37.1% of their monthly income) on food purchases. Grobler (2015) sought to evaluate the socio-economic determinants of household dietary diversity in a low-income neighbourhood in South Africa. The study aimed to understand the relationship between dietary diversity and its determinants i.e. household size, household head age, marital status, income status, employment status, and schooling level. From analysis of the determinants, the model they used displayed a negative coefficient for household size; this meant that an increase in household size led to decreased household dietary diversity.

5.5 Contribution of food purchase practices towards the households' food accessibility, a component of food security

Food purchase practices were impacted by food affordability (thus the relationship between income status and the cost of food), household size, physical accessibility of food suppliers, the availability of storage space, electricity access and refrigeration facilities, home gardening, as well as the availability of food items required at the point of purchase. The practice of home gardening gave households more options for sourcing fresh produce; however, food suppliers were still reported as their main source for fruits and vegetables, and this was largely due to the difficulty experienced in garden maintenance.

Investigating food price comparison between food outlets and food suppliers in town emphasised the significant importance of food price as a food purchase determinant. From in-depth interviews, some decision-makers expressed one of the reasons for the preference of retailers in town was the higher food prices of some items sold locally. However, with food purchase also comes the expense to commute, thus, some items may be sold at lower prices in town but there is the additional expense of having to either pay for a taxi or pay for petrol to get there, and this increases the overall expense. Food affordability, not only depends on food prices but also the financial capacity of the household head to secure the purchase. For households with higher income and more people employed, there

is a higher, food type availability. The household food income, food source and expenditure will be studied. Using a check (26.11.0) reported that it will take place after householders have to observe a variety of food a second checking of food sources required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

Household size is more related to the quantity of food purchased as well as the frequency of purchase. Where there are more household members, food is consumed quicker and so there is a need to replenish food items more frequently (Globler, 2015). Purchasing frequency; however, may also be observed where there is a smaller household size. In this instance, the dwelling

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However in smaller quantities. Although food outlets within the community did not take first preference over food suppliers in town, they have a notable contribution towards improving household food accessibility, particularly in terms of their higher physical accessibility in comparison with food suppliers in town. Reports of some quality issues still did not discourage households from purchasing locally, the closer physical distance of these shops from home made them favourable. From observation checklists and in-depth interviews, households were generally able to access food items they needed, even provided that

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 they would sometimes approach more than one outlet and would have to accept different brands and smaller packs than those in town.

5.6 Conclusion

Females generally serve as the primary purchasers in most households and thus the decision-makers for household food purchases. Although they may not be economically active and may not be the breadwinners or the highest paid individuals within households, they are more knowledgeable in terms of cost-effective food purchase, food preparation, and distribution. Even in situations where the decision-maker is male, and this accounts for 30% of the households surveyed, females still have involvement and are consulted, as they are the nurturers for most households. Food expenditure and quantities were higher for households with higher income levels, greater number of employed people, and a larger household size.

For most of the households whose dwellings are built from brick and mortar, household food accessibility was promoted, particularly in terms of water access, electricity and the presence of refrigerators for proper food storage to achieve a longer shelf-life. Vegetable garden ownership is another household food accessibility promoter; however, household decisions to engage in growing own vegetables can be negatively impacted by the cost of garden maintenance, the lack of arable land, and time that needs to be set aside by household members in order to take care of their gardens. As such, having own gardens is not the first preference in terms of securing fresh produce. Households are largely dependent on market purchases.

CHAPTER 6 CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS

that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

6.1.1 Conclusions from literature

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Food insecurity prevalence at the household level in South Africa, mainly occurs as a result of inadequate food access and not the unavailability of food. Food accessibility and importance for a point for studying household food security because, although South Africa is food secure in terms of food availability, some households are still vulnerable to food insecurity, primarily, on the physical and economic food access. The concept of food security transcends simply supplying food as a stabilisation of food supply and prices. Nutrient adequacy of the food source, as well as its dietary diversity and food utilisation are other components of food security. Food security with nutrition concept that research is considered provided that food security is already achieved.

Thus, in order for household nutrition security to be achieved, there has to be food available, as well as consideration for health and self-care when food is purchased and prepared. Social determinants of food purchase include culture, age, social class, gender, educational level and household characteristics. These will govern food choice, food preference, food preparation, and other eating patterns. The culture and eating patterns may change due to the effects of urbanisation; which shifts food consumption patterns to shorter time periods for food preparation and the purchase of ready meals or 'quick-cook' options. The economic determinants include income level, employment status, as well as education attainment. These will influence food affordability in terms of food quantities purchased, food purchasing frequency, and food expenditure.

6.1.2 Conclusions from this study

6.1.2.1 Household parameters

The study sought to determine household food purchasing practices in an urban community from Imbali Township in Pietermaritzburg, Kwa-Zulu Natal. This was done by evaluating the decision-maker demographic profile, socio-economic characteristics of the household, food accessibility information of the household, determining the food types and quantities purchased, food expenditure, and purchasing frequency. From the demographic analysis, most of the household food purchase decision-makers were female, working professionals with a high educational level and middle to high-income status. Households with a larger household size had higher food expenditure. Those that had more occupants, more adults and more people working, had higher total monthly income and food expenditure. Households that had higher employment and income status, had

[illegible]

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6.1.2.2 Purchasing practices and food accessibility

research report. Confidentiality is guaranteed, your name and any other names you may mention Most of the decision-makers relied on market purchases to meet their nutritional needs. Although will not be included in the report. Hard copies will be scanned and initially, privately stored at the outlets or shops within the community contributed significantly towards improving household food researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch access, they did not take first preference when it came to purchasing groceries, and were resorted University. Cabinets and a personal computer are to be used for storage at the researcher's own to under urgency and instances when some of the food items purchased in town had run out. They home and are only accessible by the researcher. Findings of the study will be communicated with were closer to home, which was the added convenience; however, some households did not favour you once the research is completed.

the distance and taverns near the shops, which raised concerns over safety. Households were generally able to obtain the products they were looking for from these outlets; however, they came in smaller packs compared to the products sold by retailers in town, and the shops supplied a limited variety of brands, sold at higher prices. Most of the households were satisfied with the quality of the products; however, some did report issues of spoilage, unavailability of certain food items, and questioned the hygiene of these outlets. The achievement of food accessibility clearly requires a stable income, which may be improved by the availability of alternative income sources and more employed individuals within the household. Food accessibility is improved where food suppliers are more readily accessible, where food is reasonably priced, and the income level promotes food affordability. Water and electricity access favour food utilisation, more specifically food storage and preservation, and thus food accessibility. The existence of vegetable gardens as a food source also positively contributes towards meeting household food requirements.

6.1.2.3 Determinants of food purchasing practices

From this study, the determinants of food purchasing practices were identified as food purchasing power, educational level, convenience, store hygiene, safety in the physical access to food suppliers, and transportation. Purchasing power makes reference to the financial ability to secure purchase of a product, and this will also determine food purchasing frequency and quantities. Educational level influences employment status and income level, and thus food affordability and purchasing power. Purchasing food from local shops was favourable largely due to the convenience of them being in the vicinity of decision-makers' households. Purchasing from retailers in town; however, took first preference, and this was due to the advantage these retailers had in terms of better store hygiene, a variety of food brands, multiplicity of food types sold on offer, and larger volumes of food packaging.

Permission, the types of safety and the quantities you would have food supplies that day will be noted in your checklist. A follow-up visit will take place after about five days. For households in particular, second checklists expressed the requirement to sign a purchase ledger before participating in the survey and shops that are close to Zokuse and a English where you see it. Transportation was another important factor; for households with vehicles, purchasing in town was easier but affordability of fuel was essential.

What will happen to the information I give?

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a

6.2 Study limitations

research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

from interviews and some of the questionnaire sections could have been impacted by the participants' memory. For observational checklists, the food types and quantities noted may have been affected by the amount of money that was available for food purchase, specifically on the days that the households were visited. The checklists should have not only captured food items bought from surrounding outlets but should have also considered those bought in town. Only two visits per household were made for the collection of data, more visits could have been made in order to diversify findings. In analysis and making conclusions of the households' food accessibility situation, these limitations had to be taken into consideration.

6.3 Recommendations

Observational studies could be made over more frequent visits to increase assortment of research findings in terms of the food types and quantities available. Larger samples in diversified communities would be more representative of households within urban communities and this may be assisted by a better recruitment process. Dates for data collection should be more standardised, findings from food types purchased may have been dependent on the time of the month, where more food purchases are likely to be made around dates of salary reception. Further research is recommended with a larger sample.

REFERENCES types of food and the quantities you would have bought on that day will be noted, using a checklist. A follow-up visit will be placed on food security days in South Africa and complete a second checklist. Your findings will be required to be signed and sealed before participating in the survey. *African Journal of Agricultural Extension*, **39**(2).fit.

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Permission to Withdraw: If you decide to withdraw from the study at any time, your withdrawal will be treated as if it occurred immediately after the first day of observation. You will be required to sign a consent form before participating. Interviews and surveys will be done in Zulu and/or English, as you see fit.

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home and are only accessible by the researcher. Findings of the study will be communicated with
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APPENDICES The types of food and the quantities you would have bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and **APPENDIX A: Research-administered questionnaire** surveys to be done in Zulu and/or English, as you see fit.

Title: *The determinants of food purchase practices and their contribution towards food accessibility*

What will happen to the information I give? Maritzburg, Kwa-Zulu Natal.

Researcher: Fradise Madinga, MSc. Food and Nutrition Security (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention **Study leader:** Prof. X.G. Mhonyane.

will not be included in the report. Hard copies will be scanned and initially, privately stored at the **Co-study leader:** Prof. C.J. van Rooyen.

researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own **Ethics Clearance Number:** REC-2018-7899 home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

Please tick the appropriate box and answer as honestly as possible.

A. GENERAL INFORMATION OF THE DECISION-MAKER

For further information, please contact

Code _____

1. Age

<18yrs	18-21yrs	22-35yrs	35-55yrs	56-70yrs	>70yrs
1	2	3	4	5	6

2. Gender

Female	Male
1	2

3. Marital status

Single	Married
1	2

4. Educational level

No schooling	Grade 1 - 3	Grade 4 - 7	Grade 8 - 10	Grade 11 - 12	Tertiary education
1	2	3	4	5	6

permission, the types of food and the quantities you would have bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

5. Employment status

Unemployed	Employed	Studying and working
1	2	3

What will happen to the information I give?

6. If not working, give reason

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

Cannot find a job	Prefers not to work	Ill and/disabled and unfit for work	Other(specify)
1	2	3	4

7. Number of dependants

Findings of the study will be communicated with you once the research is completed.

1 - 2	3 - 4	5 - 6	7 - 8	9 - 10	<10
1	2	3	4	5	6

For further information, please contact

person's responses to the questions. Activities you would have bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second survey. **8. How many people are working in the household?** Form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

1	2	3	4	5
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What will happen to the information I give?

9. How many people live in the household? Information or data is to be analysed by Fudziwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. **10. Number of adults living in the household (18 yrs and above)** Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

11. Number of children living in the household (under 18's)

1-2	3-4	5-6	7+
For further information, please contact	2	3	4

12. What other sources of income do the household have?

Social grant	Pension fund	Business	Relatives	Friends	Other (specify)
1	2	3	4	5	6

13. What is the household's total monthly income?

<R1000	R1001 – R2500	R2501- R3500	R3501 – R5000	R5001 – R10000	>R10000
1	2	3	4	5	6

14. What type of house do you live in?

Brick and mortar	Informal house (Shack/mud)
1	2

15. How many rooms are in your house?

1 - 2	3 - 4	5 - 6	7 - 8	+8
1	2	3	4	5

6. HOUSEHOLD AND FOOD ACCESSIBILITY INFORMATION

For each household type, a list of food items bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

16. What is your source of energy?

Electricity	Gas	Wood	Paraffin	Combination
				(specify)
1	2	3	4	5

What will happen to the information I give?

17. Do you own a refrigerator?

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

18. Do you own a freezer?

Yes	No
1	2

19. Where is the source of water in your household?

Inside the house	Tap outside the house	Bore hole in the yard	Communal tap	Other (specify)
1	2	3	4	5

20. Do you have a home vegetable garden?

Yes	No
1	2

21. Do you have a field or communal land for food production?

Yes	No
1	2

22. How often do you buy groceries?

Once a month	Twice a month	Four times a month
1	2	3

23. Where do you buy the groceries?

Surrounding outlets, spaza shops, local general dealer	Retailers/supermarkets in town	Other (specify)
1	2	4

permanently. 24. Estimate the money used for buying food on a monthly basis on that day will be noted, using a checklist as follows. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating in interviews and surveys to be done in Zulu and/or English, as you see fit.

Less than R500	R501-R700	R701-R1000	R1001-R2000	R2001-R3500	R3501-R5000	More than R5000
				5		6

What will happen to the information I give?

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

For further information, please contact

APPENDIX B: Brief types of goods for the quantitative section would have bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.
Title: *The determinants of food purchase practices and their contribution towards food accessibility per household from Imbali Township in Pietermaritzburg, Kwa-Zulu Natal.*

Researcher: Fundisiwe Malinga, MSc. Food and Nutrition Security.

What will happen to the information I give?

Study leader: Prof. X.G. Mbhenyane.

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Calendars and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

1. Please explain your main reasons for purchasing food items locally. Also include information regarding the person(s) or occurrences that inform the decision to buy food from surrounding outlets, when such purchases are made, and how often.
Do you normally draw up a list or do stock taking before buying? Who and what are the products intended for? Where is the food consumed after it is bought (school, work, home)?

2. What is your general attitude towards purchasing food items locally? Do you have any concerns, or have you experienced any issues during any time that you purchased from the said outlets, and how have you dealt with them?

Do you like purchasing from these outlets?

Any challenges when trying to get to them, are they close enough to home?

3. Please give detail regarding the types of products that are usually bought and whether you are always able to get the brands or types of food products you need.

What do you do if there is something you cannot find?

How do you obtain information as to what is available, new or has been restocked?

4. From the types of products you normally buy, how much or what quantities do you buy? Comment on bulk purchases, if any.

Are the quantities you need always available? If not, what do you do about it?

On average, how much do you spend on such purchases per week?

5. Do the products always have the quality you look for in terms of taste, smell appearance, and freshness? Give details and instances about when you were not pleased.

Did you continue buying from that outlet or do you find another one?

If you changed, how did it affect you in terms of food cost and distance from home?

6. Do you prefer these outlets over retailers in town? Please give reasons and information as to how the police compare. After four to five days to observe and complete a second round. You will be required to sign an informed consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

7. How else do you get food, if not from surrounding outlets in the neighbourhood or retailers in town?

What will happen to the information I give? *is purchasing from surrounding outlets always the first preference?*

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

For further information, please contact

APPENDIX C: Observation checklist
 The quantities you would have bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.
 Title: *The determinants of food purchase practices and their contribution towards food accessibility per household from Imballi Township in Pietermaritzburg, Kwa-Zulu Natal.*

Researcher: Fundisiwe Malinga, MSc. Food & Nutrition Security.

What will happen to the information I give?

Study leader: Prof. X.G. Mbhenyane.

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention

will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

Household observed (Code) _____

Observer _____

Date and time _____

For further information, please contact

Type of food purchased available in the household	Brand	Comment on quantity

Observer signature _____

Date _____

APPENDIX D: Consent to participate in the research
 The types of food that you would have bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

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What will happen to the information I give?

CONSENT TO PARTICIPATE IN RESEARCH

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be saved and initially, the supervisor of the research is over and he will look at the data. The data will be stored in a locked cabinet in the Division of Human Sciences at Stellenbosch University. Cabinets and papers are accessible to participants for storage at the residence of the researcher and are not accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

1. PURPOSE OF THE STUDY

The aim of the study is to identify the factors that influence people to purchase food from retailers, the shops or vendors within the community or neighbourhood. The aim is to gain understanding of food purchase practices by investigating views, experiences, and reasoning per household, the type and quantity of food purchased, how often that food is purchased, and which person makes the decisions regarding the food purchases.

2. WHAT WILL BE ASKED OF ME?

If you agree to take part in this study, you will be asked to answer questions which will be tape-recorded during an interview, and a researcher administered questionnaire. This will be done in a language you are most comfortable with (Zulu and/or English) and at the comfort of your own home, unless you choose a different location. With your permission, on the day of the interview and completion of the questionnaire, the researcher will also take note of the food types and quantities purchased from surrounding shops, using an observation checklist. A second visit is to be made four to five days after the initial visit, to complete a second checklist. The interview and completion of the questionnaire will altogether take roughly 30 minutes.

3. POSSIBLE BENEFITS TO PARTICIPANTS AND/OR TO THE SOCIETY

The study will add to existing understanding of the contribution of food purchase practices towards household food accessibility. This may also lead to understanding the contribution of such food purchase practices on the households' nutrition and health status. (This means the condition of the

body mass index, but types is influenced by the quantities the food consumed (or eaten). The results and information (both as to the situation) will be shared with you and explained to the participants complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

4. PAYMENT FOR PARTICIPATION

As a token of appreciation, each household is to receive a Pick 'n Pay gift card to the value of R50.

What will happen to the information I give?

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention Any information you share with me during this study which could possibly identify you as a participant will not be included in the report. Hard copies will be scanned and initially, privately stored at the will be protected. This will be done by using code names to identify households in the research researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch report. The tape-recorded interviews will be translated (where necessary) and typed when the final University. Cabinets and a personal computer are to be used for storage at the researcher's own research report is done. The answered questionnaires, typed interviews, and observation checklists home and are only accessible by the researcher. Findings of the study will be communicated with will be scanned and saved onto my personal computer which is protected by a password and only you once the research is completed.

5. PROTECTION OF YOUR INFORMATION, CONFIDENTIALITY AND IDENTITY

used by myself. All paperwork or hard copies are to be initially locked in a cabinet at the researcher's home (only accessed by the researcher) and then handed over to the supervisor(s) at Stellenbosch University. The report to be written will not be published; it is a research assignment as part of the For further information, please contact degree that I am studying, thus my supervisors, as mentioned above, will see it. Please indicate if that makes you uncomfortable.

If there is something you mention during the recording of the interview and you would like for it to be excluded during translation and transcription (writing down what is said from the recording) please feel free to let the researcher know.

For further information, please contact

degree that I am studying, thus my supervisors, as mentioned above, will see it. Please indicate if that makes you uncomfortable.

that makes you uncomfortable.

If there is something you mention during the recording of the interview and you would like for it to be excluded during translation and transcription (writing down what is said from the recording) please feel free to let the researcher know.

6. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you agree to take part in this study, you may withdraw at any time without any consequence.

7. RESEARCHERS' CONTACT INFORMATION

If you have any questions or concerns about this study, please feel free to contact Fundisiwe Malinga at 16757149@sun.ac.za or 083 226 9491, and/or the primary supervisor Prof, X.G. Mbhenyane at xgm@sun.ac.za or 021 938 9135, or the secondary supervisor Prof. C.J. van Rooyen at 021 808 4757.

8. RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

permission, the types of funding you might be able to secure, and how to contact Mat Mayoral. You will be required to sign a consent form before participating. Interviews and surveys will be conducted in English, as you see fit.

using the checklist. A follow-up will be done after the first interview. Please offer feedback and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys will be conducted in English, as you see fit.

DECLARATION OF CONSENT BY THE PARTICIPANT

As the participant I confirm that:

What will happen to the information I give?

- I have read the above information and it is written in a language that I am comfortable with.

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed by Fundisiwe Malinga.

- I have had a chance to ask questions and all my questions have been answered.

All issues related to privacy and the confidentiality and use of the information I provide have been explained.

By signing below, I agree to take part in this research study, as conducted by Fundisiwe Malinga.

_____ (name of participant)

_____ (signature of participant)

For further information, please contact.....

Signature of participant

Date

DECLARATION BY THE PRINCIPAL INVESTIGATOR

As the **principal investigator**, I hereby declare that the information contained in this document has been thoroughly explained to the participant. I also declare that the participant has been encouraged (and has been given ample time) to ask any questions. In addition, I would like to select the following option:

<input type="checkbox"/>	The conversation with the participant was conducted in a language in which the participant is fluent.
<input type="checkbox"/>	The conversation with the participant was conducted with the assistance of a translator (who has signed a non-disclosure agreement), and this "Consent Form" is available to the participant in a language in which the participant is fluent.

Signature of participant

Date

APPENDIX E: Participant information and the consent form
 The types of food and the quantities you would have bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

Participant Information Sheet

Title: *The determinants of food purchase practices and their contribution towards food accessibility by household from Imbali Township in Pietermaritzburg, KZN.*

What will happen to the information I give?

P.P. Malinga, MSc. Food and Nutrition Security, Stellenbosch University.

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the Stellenbosch University. Before you participate, please take time to carefully read the information below, as it is important that you understand why the research is being undertaken and what is required of you. You are more than welcome to ask any questions, discuss the information with others or decline the invitation. Should you have any other concerns, you are welcome to contact my supervisor(s) from the division itself. Information provided below.

For further information, please contact

What is the aim of this study?

To explore experience and views of households regarding food purchase, in order to determine social and economic factors of such purchase practices, the food types and quantities bought, how often they are bought and to establish the person responsible for decisions around these food purchases.

Why have I been invited?

You are a resident in the community under investigation.

Am I forced to take part?

No, participation is voluntary, but your involvement would be highly appreciated.

What is required from me?

You will take part in a survey or questionnaire where the social and economic reasons for purchasing food from shops surrounding the community will be explored. You will also be required to answer questions in an interview, which will be tape-recorded, regarding your food purchase practices, the food types and quantities you buy. This will take roughly 30 minutes of your time. With your

permission, the types of food and the quantities you would have bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

What will happen to the information I give?

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

For further information, please contact

APPENDIX F The types of food and the quantities you would have bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.



What will happen to the information? APPROVED WITH STIPULATIONS

REC Humanities New Application Form

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

Dear Miss Fundisiwe Malinga

Your REC Humanities New Application Form submitted on 25 October 2018 was reviewed by the REC: Humanities and approved with stipulations.

Ethics approval period:

Protocol approval date (Humanities)	Protocol expiration date (Humanities)
26 October 2018	25 October 2019

REC STIPULATIONS:

The researcher may proceed with the envisaged research provided that the following stipulations, relevant to the approval of the project are adhered to or addressed:

The REC approves the researcher's response to modifications and notes the researcher's request to edit the project title. The project is therefore approved with stipulations to allow the researcher to edit the project title. [ACTION REQUIRED]

HOW TO RESPOND:

Some of these stipulations may require your response. Where a response is required, you must respond to the REC within **six**

(6) months of the date of this letter. Your approval would expire automatically should your response not be received by the REC within 6 months of the date of this letter.

Your response, and all changes requested, must be done directly on the electronic application form, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English as you see fit. When revision to supporting documents is required, please ensure that you replace all outdated documents on your application form with the revised versions. Please respond to the stipulations in a separate cover letter titled “**Response to REC stipulations**” and attach the cover letter in the section **Additional Information and Documents**.

What will happen to the information I give?

Please take note of the General Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines. Information or data is to be analysed by Funderwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed; your name and any other names you may mention in the research deviates in any way from the proposal approved by the REC. Humanities, the researcher must notify the REC of these changes. Hard copies will be scanned and initially, privately stored at the researcher’s own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Please use your SU project number (7899) on any documents or correspondence with the REC concerning your project. Cabinets and a personal computer are to be used for storage at the researcher’s own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed. Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

FOR CONTINUATION OF PROJECTS AFTER REC APPROVAL PERIOD

For further information, please contact
Please note that a progress report should be submitted to the Research Ethics Committee: Humanities before the approval period has expired if a continuation of ethics approval is required. The Committee will then consider the continuation of the project for a further year (if necessary)

Included Documents:

Document Type	File Name	Date	Version
Research Protocol/Proposal	Research Assignment Proposal F. Malinga - 24 October 2018	24/10/2018	2
Informed Consent Form	Consent form F.Malinga - October	24/10/2018	2
Information sheet	Participant Information Sheet F.Malinga - October	24/10/2018	2
Data collection tool	Interview Guide F.Malinga - October	24/10/2018	2
Data collection tool	Questionnaire F.Malinga - October	24/10/2018	2
Data collection tool	Observation Checklist F.Malinga - October	24/10/2018	2
Default	Response letter F. Malinga October	24/10/2018	1

If you have any questions or need further help, please contact the REC office at cgraham@sun.ac.za.

Sincerely,

Clarissa Graham

REC Coordinator: Research Ethics Committee: Human Research (Humanities)

Investigator Responsibilities and the quantities you would have bought on that day will be noted, using a checklist. A follow-up visit will take place after four to five days to observe and complete a second checklist. You will be required to sign a consent form before participating. Interviews and surveys to be done in Zulu and/or English, as you see fit.

Some of the general responsibilities investigators have when conducting research involving human participants are listed below:

1. Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.

Information or data is to be analysed by Fundisiwe Malinga (the researcher) and presented in a research report. Confidentiality is guaranteed, your name and any other names you may mention will not be included in the report. Hard copies will be scanned and initially, privately stored at the researcher's own home in a locked cabinet, then transferred to supervisors at Stellenbosch University. Cabinets and a personal computer are to be used for storage at the researcher's own home and are only accessible by the researcher. Findings of the study will be communicated with you once the research is completed.

2. Participant Enrolment. You may not recruit or enrol participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use.

3. Informed Consent. You are responsible for obtaining and documenting effective informed consent using only the REC-approved consent documents/process, and for ensuring that no human participants are involved in research prior to obtaining REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use.

4. Monitoring Research Progress. You must monitor and approve all REC-approved research proposals at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period**. Prior to the date on which the REC approval of the research expires, it is your responsibility to submit the progress report in a timely fashion to ensure a lapse in REC approval does not occur. If REC approval of your research lapses, you must stop new participant enrolment, and contact the REC office immediately. For further information, please contact the REC office immediately.

5. Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.

6. Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research-related injuries, occurring at this institution or at other performance sites must be reported to Malene Fouche within **five (5) days** of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the RECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch University Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.

7. Research Record Keeping. You must keep the following research-related records, at a minimum, in a secure location for a minimum of five years: the REC approved research proposal and all amendments; All informed consent documents; Recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC

8. Provision of Counselling or emergency support. When a dedicated counsellor or psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.

9. Final reports. When you have completed (no further participant enrolment, interactions or interventions) or stopped work on your research, you must submit a Final Report to the REC.

10. On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending audit/evaluation.